# Source Water Assessment Report

## Public Water Supply: HAYS, CITY OF

## Assessment Areas Include:
## 369, 370, 371, 372, 373, 374, 375

Kansas Department of Health and Environment
Bureau of Water Watershed Management Section
1000 SW Jackson St., Suite 420
Topeka, KS 66612−1367

Burns &McDonnell
9400 Ward Parkway
Kansas City, MO 64114

Kansas Geological Survey University of Kansas
1930 Constant Ave.
Lawrence, KS 66047

Reports were generated with the Automated Source Water Assessment Tool (ASWAT). Assessments were completed online using ASWAT by hundreds of state employees, public water supply staff, and technical assistant providers throughout the State of Kansas.

# Table Of Contents

# Report Description

## Detailed Explanation of Entire Report:

The 1996 amendments to the Safe Drinking Water Act require each state to develop a Source Water Assessment Program (SWAP) and a Source Water Assessment (SWA) for each Public Water Supply (PWS) that treats and distributes raw source water. In Kansas there are 761 public water supplies that require SWAs. A SWA includes a delineation of the source water assessment area, an inventory of potential contaminant sources, and a susceptibility analysis.

A PWS can consist of one or more individual assessment areas that require different assessments. In general, an assessment area is delineated at a two−mile fixed radius for a groundwater well. A surface water intake assessment area is the upstream−drainage area (watershed), inside the state border. Additionally, an assessment area can consist of an individual well, group of wells, an individual surface water intake, or multiple surface water intakes.

After each assessment is completed a report is automatically generated using an Internet−based application called the Automated Source Water Assessment Tool (ASWAT). The individual assessment reports combine to form the entire SWA report for a PWS.

A map of each Assessment Area was also generated with ASWAT. However, for security reasons the maps are not included in this report. To obtain a copy of the map(s), please contact your local PWS.

All PWS reports will be available for viewing and downloading on KDHE's Watershed Management Section website(http://www.kdhe.state.ks.us/nps) in 2004.

## HAYS, CITY OF Summary:

| AA | Type | Diversion Id |
|---|---|---|
| 369 | Ground water multiple wells | S06, S07, S08, 009, 010, S16, S17, S11, S12, S13, S15, S14, S18 |
| 370 | Ground water multiple wells | 014, 019, 28A, 027, 031 |
| 371 | Ground water single well | 024 |
| 372 | Ground water multiple wells | 021, 030, 017, 029, 029 |
| 373 | Ground water multiple wells | 004, 002, 003, 001, 006, 005 |
| 374 | Ground water multiple wells | YE2, YE1 |

| | | |
|---|---|---|
| 375 | Ground water multiple wells | C32, C33 |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **369** |
| Diversion Id's: | **S06, S07, S08, 009, 010, S16, S17, S11, S12, S13, S15, S14, S18** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 13:39:32** |

## Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication − phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi−quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

# Executive Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Susceptibility Likelihood Scores for Assessment Area

| Contaminant Category | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|
| Susceptibility Likelihood Score − SLS | 54 | 52 | 56 | 56 | 53 | 59 |
| SLS Range | Mid | Mid | Mid | Mid | Mid | Mid |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

## Susceptibility Likelihood Range

| SLS Range | |
|---|---|
| **0−50** | **Low Susceptibility** |
| **51−80** | **Moderate Susceptibility** |
| **81−100** | **High Susceptibility** |

| | |
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## Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a100−foot radius around a groundwater well and a 1000−foot radius around a surface water intake. Zone B is a 2000−foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2−mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

# Potential Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Unregulated Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Confined Animal Feeding Operations Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000145 | Johnnie's Service Repair | 01733 | B |
| 3002543 | Dinges, Tom | 80314 | B |

## Regulated Identified Contaminated Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Solid Waste Potential Site Sources

| Did Not Contain Any Of These Potential Site Sources |
|---|

## Regulated Waste Water Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 6001085 | OXFORD | M−AR68−NO01 | C |

| | |
|---|---|
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## Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

# Added Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Added Potential Site Sources

| Source No. | Source Name | SIC ID | Zone |
|---|---|---|---|
| 9000642 | on−site wastewater facility | 10067 | B |
| 9000641 | sand pit | 10079 | B |
| 9000644 | pastureland with stock cattle | 10080 | B |
| 9000643 | dryland wheat field | 111 | B |
| 9000645 | above and below ground storage tanks | 10026 | C |

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## Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# Potential Contaminants Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Number of Unregulated Site Sources Identified for each Contaminant Category

| MicroBiological | Pesticides | IOC's | SOC's | VOC's | Nitrates |
|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

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## Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

**A** − Microbiolgical **B** − Inorganic Compounds **B1** − Eutrophication − Phosphorous
**B2** − Sedimentation **B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

# Potential Contaminants Listing

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Unregulated Identified Site Sources and associated Potential Contaminant Category

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| Did Not Contain Any Potential Contaminants | | | |

| | |
|---|---|
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## Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

# Protection Measures

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| No Protection Measures Listed | | | | |

| | |
|---|---|
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## Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

# Assessment Analysis

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Ground Water Multiple Wells Analysis

**A** − Microbiolgical **B** − Inorganic Compounds
**B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 1 | Is any well under the influence of surface water? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Do all PWS wells meet KS PWS water well construction standards? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Is any well less than 30 feet deep? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Is gravel pack within 20 feet of any well surface? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Does a PWS own or control all the areas around the wells? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Does Zone B consist entirely of native grass? | No | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | Is there a contaminated well in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Is a class V UIC well present? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Are any commercial, industrial, or urban areas present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 10 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 11 | Are any non−farm home sites present in Zone B? | Yes | 1 | 0 | 1 | 0 | 1 | 0 |
| 12 | Do all the non−farm home sites have a water quality protection plan? | No | 1 | 0 | 1 | 0 | 1 | 0 |
| 13 | Are any farmsteads present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 14 | Do all farmsteads have a water quality protection plan? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 15 | Is there grazing livestock in Zone B? | Yes | 1 | 0 | 1 | 0 | 0 | 0 |
| 16 | Have all livestock producers implemented water quality protection measures? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 17 | Is there livestock confinement in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 18 | Is each confined animal feeding operation registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Is there corn or grain sorghum production in Zone B? | Yes | 0 | 0 | 1 | 0 | 1 | 0 |
| 20 | Are corn/grain sorghum nutrient and pesticide management plans in use for each site? | No | 0 | 0 | 1 | 0 | 1 | 0 |
| 21 | Are any orchards present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Are orchard nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B? | Yes | 1 | 1 | 1 | 0 | 0 | 0 |
| 24 | Is there a railroad or major highway in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 25 | Is there oil production in Zone B or C? | Yes | 0 | 1 | 0 | 1 | 0 | 1 |
| 26 | Do coarse textured soils predominate Zones A, B and C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 27 | Is an irrigation well located in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 28 | Is a wastewater treatment facility in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | Is a solid waste landfill in Zone B or C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | Are there unplugged, abandoned water wells present in Zone C? | Yes | 2 | 1 | 1 | 1 | 1 | 1 |
| 31 | Are any commercial, industrial, or urban area present in Zone C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 33 | Is there livestock confinement in Zone C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 34 | Is each confined livestock facility registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | Do all the livestock producers have water quality protection measures in place? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 36 | Are cropland nutrient management plans in place? | No | 0 | 0 | 1 | 0 | 0 | 0 |
| 37 | Are cropland pesticide management plans in place? | No | 0 | 0 | 0 | 0 | 1 | 0 |
| 38 | Does a perennial stream flow into Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 39 | Are watershed water quality protection plans in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |

| | |
|---|---|
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| Status: | **Accepted** |
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## Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

# Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Comments for Unregulated Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Confined Animal Feeding Operations Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Hazardous Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Leaking Storage Tank Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Dinges, Tom | 3002543 | The site is closed from a gasoline leak in 1992. The contamination was within .25 miles of PWS wells #18 and #10. | Nicole Fisher |
| Johnnie's Service Repair | 3000145 | The site is closed from a gasoline leak in 1994. No groundwater contamination was suspected. | Nicole Fisher |

## Comments for Regulated Identified Contaminated Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Solid Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Waste Water Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| OXFORD | 6001085 | This facility uses nondischarging lagoons. | Nicole Fisher |

| | |
|---|---|
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## Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

# Added Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Comments for Added Contaminant Sites

| Added Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| above and below ground storage tanks | 9000645 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| dryland wheat field | 9000643 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| on−site wastewater facility | 9000642 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| pastureland with stock cattle | 9000644 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| sand pit | 9000641 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |

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## Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# Analysis Question Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **369**

## Comments for Analysis Questions

| Analysis Question | Question Comments | Author |
|---|---|---|
| Did Not Receive Any Comments | | |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **370** |
| Diversion Id's: | **014, 019, 28A, 027, 031** |
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| Submit Date: | **2002−12−10 14:26:24** |

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# Executive Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Susceptibility Likelihood Scores for Assessment Area

| Contaminant Category | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|
| Susceptibility Likelihood Score − SLS | 57 | 56 | 51 | 60 | 51 | 59 |
| SLS Range | Mid | Mid | Low | Mid | Low | Mid |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
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## Susceptibility Likelihood Range

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**Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

# Potential Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207646 | Veterinary Services, Specialties | 742 | B |
| 207647 | Veterinary Services, Specialties | 742 | B |
| 207886 | Animal Specialty Services | 752 | B |
| 207639 | Oil and Gas Field services | 1389 | B |
| 207640 | Oil and Gas Field services | 1389 | B |
| 207855 | Oil and Gas Field services | 1389 | B |
| 207583 | Nonresidential Construction | 1542 | B |
| 207634 | Aircraft Equipment Manufacturing | 3728 | B |
| 207959 | Refuse Systems | 4953 | B |
| 207857 | Farm and Garden Machinery | 5083 | B |
| 207633 | Mobile Home Park | 6515 | B |
| 207569 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | B |
| 207590 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | B |
| 207629 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | B |
| 207643 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | B |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207842 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | B |
| 207562 | Auto Truck Repair Service | 7538 | B |
| 207591 | Auto Truck Repair Service | 7538 | B |
| 207611 | Auto Truck Repair Service | 7538 | B |
| 207067 | Repair Services, Nec | 7699 | B |
| 207636 | Repair Services, Nec | 7699 | B |
| 206464 | Cattle Farm | 211 | C |
| 206997 | Veterinary Services, Specialties | 742 | C |
| 206465 | Animal Specialty Services | 752 | C |
| 206916 | Animal Specialty Services | 752 | C |
| 206955 | Animal Specialty Services | 752 | C |
| 207684 | Animal Specialty Services | 752 | C |
| 206469 | Oil and Gas Field services | 1389 | C |
| 206470 | Oil and Gas Field services | 1389 | C |
| 206471 | Oil and Gas Field services | 1389 | C |
| 206472 | Oil and Gas Field services | 1389 | C |
| 206473 | Oil and Gas Field services | 1389 | C |
| 206474 | Oil and Gas Field services | 1389 | C |
| 206475 | Oil and Gas Field services | 1389 | C |
| 206897 | Oil and Gas Field services | 1389 | C |
| 207045 | Oil and Gas Field services | 1389 | C |
| 207142 | Oil and Gas Field services | 1389 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207208 | Oil and Gas Field services | 1389 | C |
| 207256 | Oil and Gas Field services | 1389 | C |
| 207379 | Oil and Gas Field services | 1389 | C |
| 207380 | Oil and Gas Field services | 1389 | C |
| 207622 | Oil and Gas Field services | 1389 | C |
| 207841 | Oil and Gas Field services | 1389 | C |
| 207845 | Oil and Gas Field services | 1389 | C |
| 207901 | Oil and Gas Field services | 1389 | C |
| 207987 | Oil and Gas Field services | 1389 | C |
| 207988 | Oil and Gas Field services | 1389 | C |
| 206645 | Single−family Housing Construction | 1521 | C |
| 206734 | Single−family Housing Construction | 1521 | C |
| 206881 | Single−family Housing Construction | 1521 | C |
| 207076 | Single−family Housing Construction | 1521 | C |
| 207115 | Single−family Housing Construction | 1521 | C |
| 207140 | Single−family Housing Construction | 1521 | C |
| 207162 | Single−family Housing Construction | 1521 | C |
| 207207 | Single−family Housing Construction | 1521 | C |
| 207232 | Single−family Housing Construction | 1521 | C |
| 207302 | Single−family Housing Construction | 1521 | C |
| 207367 | Single−family Housing Construction | 1521 | C |
| 207431 | Single−family Housing Construction | 1521 | C |
| 207505 | Single−family Housing Construction | 1521 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207671 | Single−family Housing Construction | 1521 | C |
| 207677 | Single−family Housing Construction | 1521 | C |
| 207877 | Single−family Housing Construction | 1521 | C |
| 207902 | Single−family Housing Construction | 1521 | C |
| 207903 | Single−family Housing Construction | 1521 | C |
| 207206 | Nonresidential Construction | 1542 | C |
| 207678 | Nonresidential Construction | 1542 | C |
| 206476 | Highway and Street Construction | 1611 | C |
| 206477 | Highway and Street Construction | 1611 | C |
| 207289 | Highway and Street Construction | 1611 | C |
| 207371 | Highway and Street Construction | 1611 | C |
| 207668 | Prepared Feeds For Animals and Fowls | 2048 | C |
| 207537 | Wood Kitchen Cabinets Manufacturing | 2434 | C |
| 206485 | Structural Wood members Manufacturing | 2439 | C |
| 207736 | Newspapers Publishing and Printing | 2711 | C |
| 207731 | Commercial Printing−Lithographic | 2752 | C |
| 207164 | Commercial Printing NEC | 2759 | C |
| 207782 | Commercial Printing NEC | 2759 | C |
| 207792 | Commercial Printing NEC | 2759 | C |
| 207793 | Commercial Printing NEC | 2759 | C |
| 206850 | Sheet Metal Work Manufacturing | 3444 | C |
| 207107 | Special Industries Machinery Manufacturing | 3559 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206489 | Machinery, Except Electrical Manufacturing | 3599 | C |
| 206672 | Signs and Advertising Display Manufacturing | 3993 | C |
| 206858 | Signs and Advertising Display Manufacturing | 3993 | C |
| 206907 | Manufacturing Industries, nec | 3999 | C |
| 207263 | Manufacturing Industries, nec | 3999 | C |
| 206492 | Local Trucking, without Storage | 4212 | C |
| 206498 | Combination Utility Services, nec | 4939 | C |
| 207046 | Refuse Systems | 4953 | C |
| 207047 | Refuse Systems | 4953 | C |
| 207885 | Refuse Systems | 4953 | C |
| 207298 | Farm and Garden Machinery | 5083 | C |
| 206456 | Gasoline Service Station | 5541 | C |
| 206510 | Gasoline Service Station | 5541 | C |
| 206748 | Gasoline Service Station | 5541 | C |
| 207279 | Gasoline Service Station | 5541 | C |
| 207483 | Gasoline Service Station | 5541 | C |
| 207686 | Gasoline Service Station | 5541 | C |
| 207732 | Gasoline Service Station | 5541 | C |
| 207951 | Recreational vehicle sales and repair | 5561 | C |
| 207952 | Recreational vehicle sales and repair | 5561 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206525 | Mobile Home Park | 6515 | C |
| 207288 | Mobile Home Park | 6515 | C |
| 207503 | Mobile Home Park | 6515 | C |
| 207904 | Mobile Home Park | 6515 | C |
| 207157 | Photofinishing Laboratory | 7384 | C |
| 206729 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207332 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207673 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 206562 | Auto Truck Repair Service | 7538 | C |
| 206709 | Auto Truck Repair Service | 7538 | C |
| 206710 | Auto Truck Repair Service | 7538 | C |
| 206730 | Auto Truck Repair Service | 7538 | C |
| 206975 | Auto Truck Repair Service | 7538 | C |
| 207096 | Auto Truck Repair Service | 7538 | C |
| 207253 | Auto Truck Repair Service | 7538 | C |
| 207262 | Auto Truck Repair Service | 7538 | C |
| 207337 | Auto Truck Repair Service | 7538 | C |
| 207352 | Auto Truck Repair Service | 7538 | C |
| 207429 | Auto Truck Repair Service | 7538 | C |
| 207648 | Auto Truck Repair Service | 7538 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206844 | Car Wash | 7542 | C |
| 206847 | Car Wash | 7542 | C |
| 207333 | Car Wash | 7542 | C |
| 207747 | Car Wash | 7542 | C |
| 206594 | Repair Services, Nec | 7699 | C |
| 206835 | Repair Services, Nec | 7699 | C |
| 206909 | Repair Services, Nec | 7699 | C |
| 207058 | Repair Services, Nec | 7699 | C |
| 207063 | Repair Services, Nec | 7699 | C |
| 207189 | Repair Services, Nec | 7699 | C |
| 207620 | Repair Services, Nec | 7699 | C |
| 207674 | Repair Services, Nec | 7699 | C |
| 207879 | Golf Course | 7992 | C |
| 207880 | Golf Course | 7992 | C |

## Regulated Confined Animal Feeding Operations Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 2001226 | Binder And Son Dairy | A−SHEL−M005 | C |
| 2001823 | Fort Hays State University Farm | A−SHEL−M001 | C |
| 2002504 | Ksu Agricultural Research Ctr. | A−SHEL−B001 | C |

## Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000146 | Home Oil Supply | 01737 | B |
| 3000398 | A A Coors | 04941 | B |
| 3000600 | Mr Quick Mini Mart | 06528 | B |
| 3001017 | Haliburton | 13507 | B |
| 3001140 | Karst Well Drilling | 17679 | B |
| 3001200 | Speedy Lube Oil | 20216 | B |
| 3001203 | Standish Ford, Inc. | 20268 | B |
| 3002098 | Us Supply | 28561 | B |
| 3002124 | Halliburton Serv | 28713 | B |
| 3002426 | Davis Mud | 42358 | B |
| 3002645 | Hays Asphalt Construction Inc. | 81166 | B |
| 3002748 | Roth Electronics | 81416 | B |
| 3002776 | M D Inc | 81479 | B |
| 3002799 | Circle S Trailer Sales Inc | 81553 | B |
| 3000253 | Midland Marketing | 03076 | C |
| 3000285 | Frontier Quick Mart | 03487 | C |
| 3000344 | Allied Inc | 04204 | C |
| 3000415 | Werth Tank Service | 05077 | C |
| 3000514 | Hays Medical Center, Hadley Campus | 06173 | C |
| 3000531 | Hays Medical Center, St Anthony | 06258 | C |
| 3000548 | Dons 66 | 06341 | C |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000606 | Allied Asphalt Inc | 06548 | C |
| 3000644 | Love's #44 | 06728 | C |
| 3000675 | Coastal Mart #2501 | 06843 | C |
| 3000676 | Coastal Mart #2502 | 06844 | C |
| 3000677 | Coastal Mart #2504 | 06845 | C |
| 3000710 | Asb Oil Inc | 07026 | C |
| 3000847 | Hays Fire Dept | 08777 | C |
| 3000848 | Hays, Parks Dept | 08778 | C |
| 3000849 | Hays, Service Dept | 08779 | C |
| 3000850 | Hays Airport | 08780 | C |
| 3000950 | Art's Apco | 11481 | C |
| 3000974 | Brown's Service Center | 12215 | C |
| 3001023 | Kansas Mobile Glass | 13868 | C |
| 3001091 | James Motor C0 | 15972 | C |
| 3001122 | Leroy's Diamond Shamrock | 17115 | C |
| 3001124 | Kerr−mcgee #6295 ("al's") | 17141 | C |
| 3001364 | Fort Hays St Univ, Motor Pool | 24183 | C |
| 3001391 | Apco #641, Vine St | 25028 | C |
| 3001423 | Amoco #9533 | 25226 | C |
| 3001490 | J C Penney | 25574 | C |
| 3001537 | Mr Quick #2 | 25793 | C |
| 3001590 | Air Midwest, Hays | 26061 | C |
| 3001594 | Ideal Trucking | 26072 | C |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3001603 | Gilmore Construction | 26114 | C |
| 3001604 | Johnson Co, Executive Airport | 26115 | C |
| 3001680 | Kmart #9067 | 26436 | C |
| 3001750 | Kdot, Hays | 26687 | C |
| 3001808 | Army Reserve Center | 27022 | C |
| 3001819 | Ups, Hays | 27053 | C |
| 3001835 | Tmp−marian High School, Hays, 1701 Hall | 27111 | C |
| 3001864 | Fort Hays Exp. Station | 27256 | C |
| 3001914 | Kang | 27458 | C |
| 3002169 | Schlitter Service | 28929 | C |
| 3002258 | Apc0, Main St | 29361 | C |
| 3002343 | Thrift Distributors | 29733 | C |
| 3002405 | Midland Marketing Coop | 40217 | C |
| 3002417 | Janzen Oil − East Bulk | 41536 | C |
| 3002625 | Hutchison Vending Co | 80813 | C |
| 3002649 | Midway Cable Tv Co. | 81178 | C |
| 3002677 | Rome, Ron Property | 81261 | C |
| 3002745 | Quality Cleaners | 81409 | C |
| 3002770 | Thompson Oil Co | 81464 | C |
| 3002789 | Ellis Co Emergency Management | 81507 | C |
| 3002805 | Sun Cement, Former | 81583 | C |
| 3002852 | Stewart Well Service | 81700 | C |
| 3002876 | Dowell Site, Former | 81780 | C |

## Regulated Identified Contaminated Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 7000888 | PERMIAN OIL | C602600037 | B |
| 7000892 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | B |
| 7000893 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | B |
| 7000894 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | B |
| 7000896 | MIDWEST ENERGY, INC. | C602603013 | B |
| 7000897 | DOWELL−SCHLUMBERGER FACILITY (FORMER) | C602603014 | B |
| 7000901 | AUTO HOUSE BODY SHOP DISPOSAL SITE | C602671101 | B |
| 7000885 | CROSS MANUFACTURING CO., INC. | C602600014 | C |
| 7000887 | NORGE'S DRYCLEANERS | C602600034 | C |
| 7000900 | CLARK'S WELL SITE | C602670625 | C |

## Regulated Solid Waste Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 5000769 | City of Hays | 0747−S | B |

## Regulated Waste Water Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 6000291 | KDHE−SOUTH HAYS GROUNDWATER REMED. | I−SH16−PO06 | B |

## Regulated Waste Water Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 6000888 | ROME CORPORATION / WESTERN WELL SERVICE | I−SH16−NP03 | B |
| 6001723 | HAYS WWTF | M−SH16−OO02 | B |
| 6001724 | HAYS WWTF | M−SH16−OO02 | B |
| 6000049 | MEADOW ACRES MOBILE HOME PARK | C−SH16−OO02 | C |
| 6000890 | J.C. PENNEY COMPANY−HAYS | I−SH16−PO08 | C |
| 6000891 | KDHE/BER (DRY CLEANING TRUST FUND) HAYS | I−SH16−PO10 | C |
| 6001726 | HAYS WWTF | M−SH16−OO02 | C |
| 6001732 | HAYS WWTF | M−SH16−OO02 | C |
| 6002028 | A−1 PLANK SCAFFOLD MFG. INC. | P−SH16−OO02 | C |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **370** |
| Diversion Id's: | **014, 019, 28A, 027, 031** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 14:26:24** |

## Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

# Added Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Added Potential Site Sources

| Source No. | Source Name | SIC ID | Zone |
|---|---|---|---|
| 9000650 | football field | 10073 | B |
| 9000648 | oil and gas wells | 1381 | B |
| 9000647 | underground gas oil pipelines | 4600 | B |
| 9000651 | Fuel, grain and feed and hay storage | 10026 | C |
| 9000649 | pastureland with stock cattle | 10080 | C |
| 9000646 | dryland wheat field | 111 | C |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**
Diversion Id's: **014, 019, 28A, 027, 031**
Status: **Accepted**
Submit Date: **2002−12−10 14:26:24**

## Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# Potential Contaminants Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Number of Unregulated Site Sources Identified for each Contaminant Category

| MicroBiological | Pesticides | IOC's | SOC's | VOC's | Nitrates |
|---|---|---|---|---|---|
| 39 | 8 | 108 | 51 | 56 | 36 |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**
Diversion Id's: **014, 019, 28A, 027, 031**
Status: **Accepted**
Submit Date: **2002−12−10 14:26:24**

## Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

**A** − Microbiolgical **B** − Inorganic Compounds **B1** − Eutrophication − Phosphorous
**B2** − Sedimentation **B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

# Potential Contaminants Listing

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Unregulated Identified Site Sources and associated Potential Contaminant Category

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 3728 | Aircraft Equipment Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 7538 | Auto Truck Repair Service | Inorganics, VOCs | B |
| " | " | " | D |
| 7542 | Car Wash | Inorganics, VOCs | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | D |
| 211 | Cattle Farm | Sanitary, Fertilizers TSS, pesticides, Erosion and sedimentation | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 4939 | Combination Utility Services, nec | Inorganics, VOCs | B |
| " | " | " | D |
| 5541 | Gasoline Service Station | Inorganics, VOCs | B |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 5541 | Gasoline Service Station | Inorganics, VOCs | D |
| 7992 | Golf Course | Fertilizers and pesticides | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 1611 | Highway and Street Construction | Sedimentation | B2 |
| 4212 | Local Trucking, without Storage | VOCs | D |
| 3599 | Machinery, Except Electrical Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 3999 | Manufacturing Industries, nec | inorganics, VOCs | B |
| " | " | " | D |
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B* |
| 1542 | Nonresidential Construction | Sedimentation | B2 |
| 1389 | Oil and Gas Field services | Oil, Salt Water | B |
| " | " | " | C |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 7384 | Photofinishing Laboratory | NA | B |
| " | " | " | D |
| 3444 | Sheet Metal Work Manufacturing | Metals and TSS, VOCs and metal etch | B |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |
| 3559 | Special Industries Machinery Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 2439 | Structural Wood members Manufacturing | TSS, VOCs | B |
| " | " | " | D |
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | B |
| " | " | " | D |
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | A |
| " | " | " | B |
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | B |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | D |
| 752 | Animal Specialty Services | Sanitary, fertilizers | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| 2759 | Commercial Printing NEC | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 2752 | Commercial Printing−Lithographic | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 5083 | Farm and Garden Machinery | inorganics | B |
| 2711 | Newspapers Publishing and Printing | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 2048 | Prepared Feeds For Animals and Fowls | Sanitary, Nitrates, phosphorous and pesticides | A |
| " | " | " | B |
| " | " | " | B1 |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 2048 | Prepared Feeds For Animals and Fowls | Sanitary, Nitrates, phosphorous and pesticides | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 5561 | Recreational vehicle sales and repair | Inorganics | B |
| 4953 | Refuse Systems | ALL | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |
| " | " | " | C* |
| " | " | " | D |
| 7699 | Repair Services, Nec | inorganics | B |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **370** |
| Diversion Id's: | **014, 019, 28A, 027, 031** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 14:26:24** |

## Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

# Protection Measures

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 3728 | Aircraft Equipment Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 464 and State or federal Storm water pollution prevention regulations |
| 7538 | Auto Truck Repair Service | Inorganics, VOCs | Discharge to POTW. Manage oil products and used oil so that it is not in contact with water | 40 CFR 442 and |
| 7542 | Car Wash | Inorganics, VOCs | Install and maintain sediment and grease traps where appropriate | 40 CFR 442 |
| 211 | Cattle Farm | Sanitary, Fertilizers TSS, pesticides, Erosion and sedimentation | Proper application of fertilizers and pesticides. Proper cleaning of equipment and disposal of chemicals. Maintain riparian areas along waterways and keep cattle out of these areas. Proper Waste Management and Grazing Management. | KDHE−Livestock Waste Management Section, KAR 28−16, KDA, County Soil Conservation District, NRCS |
| 4939 | Combination Utility Services, nec | Inorganics, VOCs | Maintain secondary containment for fuel storage and fueling areas. Maintain and inspect. Effect repairs promptly | NA |
| 5541 | Gasoline Service Station | Inorganics, VOCs | Maintain area to minimize fuel contamination | NA |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 7992 | Golf Course | Fertilizers and pesticides | Proper application of fertilizers and pesticides. Proper cleaning of equipment and disposal of chemicals. | KDHE, KAR 28−16 |
| 1611 | Highway and Street Construction | Sedimentation | Erosion and Sediment Control | KAR 28−16, KDHE |
| 4212 | Local Trucking, without Storage | VOCs | Discharge to a POTW | State or federal Storm water pollution prevention regulations |
| 3599 | Machinery, Except Electrical Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 3999 | Manufacturing Industries, nec | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | Discharge to POTW. Minimize use of lawn chemicals | KAR 28−5 |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 1542 | Nonresidential Construction | Sedimentation | Erosion and Sediment Control | KAR 28−16, KDHE |
| 1389 | Oil and Gas Field services | Oil, Salt Water | Proper management of production wastes | KAR 28−41, 45, 40 CFR 435 |
| 7384 | Photofinishing Laboratory | NA | Discharge to POTW. Recycle chemicals | CFR 40 459 |
| 3444 | Sheet Metal Work Manufacturing | Metals and TSS, VOCs and metal etch | Minimize outdoor storage and control storm water runoff. Pre−treat process wastewater prior to discharge to POTW | 40 CFR 464 and State or federal Storm water pollution prevention regulations |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers | KAR 28−48, KDHE, KDEM |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 3559 | Special Industries Machinery Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 2439 | Structural Wood members Manufacturing | TSS, VOCs | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly | NA |
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | Discharge to POT | NA |
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |
| 752 | Animal Specialty Services | Sanitary, fertilizers | Collect and treat wastes. | NA |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 2759 | Commercial Printing NEC | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 2752 | Commercial Printing−Lithographic | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 5083 | Farm and Garden Machinery | inorganics | Discharge to POTW | NA |
| 2711 | Newspapers Publishing and Printing | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 2048 | Prepared Feeds For Animals and Fowls | Sanitary, Nitrates, phosphorous and pesticides | Maintain animal feeding areas and feed storage areas to minimize contact with storm water. Collect and treat process wastes. | 40 CFR 412 and State or federal Storm water pollution prevention regulations |
| 5561 | Recreational vehicle sales and repair | Inorganics | Discharge to a POTW. Store oils and lubricants properly | Discharge to a POTW. Store oils and lubricants properly |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 4953 | Refuse Systems | ALL | Store wastes properly in order to minimize contact with storm water. | Maintain the lagoon or storage vessel properly. Control storm water run on and runoff to minimize contamination of storm water |
| 7699 | Repair Services, Nec | inorganics | Discharge to POTW | NA |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **370** |
| Diversion Id's: | **014, 019, 28A, 027, 031** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 14:26:24** |

## Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

# Assessment Analysis

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Ground Water Multiple Wells Analysis

**A** − Microbiolgical **B** − Inorganic Compounds
**B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 1 | Is any well under the influence of surface water? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Do all PWS wells meet KS PWS water well construction standards? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Is any well less than 30 feet deep? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Is gravel pack within 20 feet of any well surface? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Does a PWS own or control all the areas around the wells? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Does Zone B consist entirely of native grass? | No | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | Is there a contaminated well in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Is a class V UIC well present? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Are any commercial, industrial, or urban areas present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 10 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 11 | Are any non−farm home sites present in Zone B? | Yes | 1 | 0 | 1 | 0 | 1 | 0 |
| 12 | Do all the non−farm home sites have a water quality protection plan? | No | 1 | 0 | 1 | 0 | 1 | 0 |
| 13 | Are any farmsteads present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | Do all farmsteads have a water quality protection plan? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Is there grazing livestock in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Have all livestock producers implemented water quality protection measures? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | Is there livestock confinement in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 18 | Is each confined animal feeding operation registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Is there corn or grain sorghum production in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | Are corn/grain sorghum nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 | Are any orchards present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Are orchard nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B? | Yes | 1 | 1 | 1 | 0 | 0 | 0 |
| 24 | Is there a railroad or major highway in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 25 | Is there oil production in Zone B or C? | Yes | 0 | 1 | 0 | 1 | 0 | 1 |
| 26 | Do coarse textured soils predominate Zones A, B and C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 27 | Is an irrigation well located in Zone B or C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 | Is a wastewater treatment facility in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | Is a solid waste landfill in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 30 | Are there unplugged, abandoned water wells present in Zone C? | Yes | 2 | 1 | 1 | 1 | 1 | 1 |
| 31 | Are any commercial, industrial, or urban area present in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 32 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 33 | Is there livestock confinement in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 0 |
| 34 | Is each confined livestock facility registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | Do all the livestock producers have water quality protection measures in place? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 36 | Are cropland nutrient management plans in place? | No | 0 | 0 | 1 | 0 | 0 | 0 |
| 37 | Are cropland pesticide management plans in place? | No | 0 | 0 | 0 | 0 | 1 | 0 |
| 38 | Does a perennial stream flow into Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 39 | Are watershed water quality protection plans in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **370** |
| Diversion Id's: | **014, 019, 28A, 027, 031** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 14:26:24** |

## Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

# Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Comments for Unregulated Sites

| Potential Contaminant Site No. | Site Comments | Author |
|---|---|---|
| 207639 | TEST COMMENT FOR 207639 | Derrick Beasley |

## Comments for Regulated Confined Animal Feeding Operations Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Binder And Son Dairy | 2001226 | This is a small dairy facility with no groundwater monitoring. | Nicole Fisher |
| Fort Hays State University Farm | 2001823 | This is a small dairy facility with no groundwater monitoring. | Nicole Fisher |
| Ksu Agricultural Research Ctr. | 2002504 | This cattle livestock facility has no water quality protection plans. | Nicole Fisher |

## Comments for Regulated Hazardous Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Leaking Storage Tank Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| A A Coors | 3000398 | the site is closed from a diesel leak in 1991. No groundwater contamination was suspected. | Nicole Fisher |
| Dons 66 | 3000548 | Tank removed | Mary Howes |
| Haliburton | 3001017 | the site is currently being monitored from a xylene leak in 1989. There are 2 PWS wells and 4 domestic water wells within .25 miles downgradient of the leak. | Nicole Fisher |
| Home Oil Supply | 3000146 | The site is active from a gasoline leak in 1998. Low levels of VOC's are present in the groundwater. | Nicole Fisher |
| Karst Well Drilling | 3001140 | The site is active from a gasoline leak in 1995. Groundwater pollution did occur. | Nicole Fisher |
| Mr Quick Mini Mart | 3000600 | The site is currently being monitored from a gasoline leak in 1992. There are 2 PWS wells and 3 domestic water wells within .25 miles downgradient of the leak. | Nicole Fisher |
| Speedy Lube Oil | 3001200 | The site is closed; no leakage was detected. | Nicole Fisher |

## Comments for Regulated Identified Contaminated Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| MIDWEST ENERGY, INC. | 7000896 | The soil was contaminated with mercury and the contamination has been resolved. | Nicole Fisher |
| PERMIAN OIL | 7000888 | The soil and groundwater was contaminated with VOC's and observation wells were established in 1986. | Nicole Fisher |
| WEST 8TH STREET (HAYS WELLS − 20,27,28) | 7000892 | Soil, groundwater, PWS, and private wells were contaminated with VOC from an unknown source. For more information please contact Robert Jurgens (785) 291−3250 | Nicole Fisher |

## Comments for Regulated Solid Waste Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| City of Hays | 5000769 | This solid waste facility is used for composting materials. No groundwater monitoring is required. | Nicole Fisher |

## Comments for Regulated Waste Water Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| KDHE/BER (DRY CLEANING TRUST FUND) HAYS | 6000891 | This facility frequently discharges water with contaminants that are within the recommended levels. | Nicole Fisher |
| ROME CORPORATION / WESTERN WELL SERVICE | 6000888 | This facility uses non−discharging lagoons. | Nicole Fisher |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
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| Status: | **Accepted** |
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## Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

# Added Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Comments for Added Contaminant Sites

| Added Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fuel, grain and feed and hay storage | 9000651 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| dryland wheat field | 9000646 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| football field | 9000650 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| oil and gas wells | 9000648 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| pastureland with stock cattle | 9000649 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| underground gas oil pipelines | 9000647 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **370** |
| Diversion Id's: | **014, 019, 28A, 027, 031** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 14:26:24** |

## Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# Analysis Question Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **370**

## Comments for Analysis Questions

| Analysis Question | Question Comments | Author |
|---|---|---|
| Did Not Receive Any Comments | | |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **371** |
| Diversion Id's: | **024** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 14:35:43** |

## Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication − phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi−quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

# Executive Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Susceptibility Likelihood Scores for Assessment Area

| Contaminant Category | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|
| Susceptibility Likelihood Score − SLS | 54 | 56 | 51 | 60 | 51 | 59 |
| SLS Range | Mid | Mid | Low | Mid | Low | Mid |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

## Susceptibility Likelihood Range

| SLS Range | |
|---|---|
| 0−50 | Low Susceptibility |
| 51−80 | Moderate Susceptibility |
| 81−100 | High Susceptibility |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002−12−10 14:35:43**

## Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a100−foot radius around a groundwater well and a 1000−foot radius around a surface water intake. Zone B is a 2000−foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2−mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

# Potential Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206464 | Cattle Farm | 211 | B |
| 206465 | Animal Specialty Services | 752 | B |
| 206469 | Oil and Gas Field services | 1389 | B |
| 206470 | Oil and Gas Field services | 1389 | B |
| 206471 | Oil and Gas Field services | 1389 | B |
| 206472 | Oil and Gas Field services | 1389 | B |
| 206473 | Oil and Gas Field services | 1389 | B |
| 206474 | Oil and Gas Field services | 1389 | B |
| 206475 | Oil and Gas Field services | 1389 | B |
| 207677 | Single−family Housing Construction | 1521 | B |
| 207678 | Nonresidential Construction | 1542 | B |
| 206476 | Highway and Street Construction | 1611 | B |
| 206477 | Highway and Street Construction | 1611 | B |
| 206485 | Structural Wood members Manufacturing | 2439 | B |
| 207736 | Newspapers Publishing and Printing | 2711 | B |
| 207731 | Commercial Printing−Lithographic | 2752 | B |
| 207782 | Commercial Printing NEC | 2759 | B |
| 207792 | Commercial Printing NEC | 2759 | B |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207793 | Commercial Printing NEC | 2759 | B |
| 206489 | Machinery, Except Electrical Manufacturing | 3599 | B |
| 206492 | Local Trucking, without Storage | 4212 | B |
| 206510 | Gasoline Service Station | 5541 | B |
| 207732 | Gasoline Service Station | 5541 | B |
| 206525 | Mobile Home Park | 6515 | B |
| 207747 | Car Wash | 7542 | B |
| 206594 | Repair Services, Nec | 7699 | B |
| 206997 | Veterinary Services, Specialties | 742 | C |
| 207646 | Veterinary Services, Specialties | 742 | C |
| 207647 | Veterinary Services, Specialties | 742 | C |
| 206916 | Animal Specialty Services | 752 | C |
| 206955 | Animal Specialty Services | 752 | C |
| 207684 | Animal Specialty Services | 752 | C |
| 207886 | Animal Specialty Services | 752 | C |
| 206897 | Oil and Gas Field services | 1389 | C |
| 207045 | Oil and Gas Field services | 1389 | C |
| 207208 | Oil and Gas Field services | 1389 | C |
| 207256 | Oil and Gas Field services | 1389 | C |
| 207379 | Oil and Gas Field services | 1389 | C |
| 207380 | Oil and Gas Field services | 1389 | C |
| 207622 | Oil and Gas Field services | 1389 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207639 | Oil and Gas Field services | 1389 | C |
| 207640 | Oil and Gas Field services | 1389 | C |
| 207841 | Oil and Gas Field services | 1389 | C |
| 207855 | Oil and Gas Field services | 1389 | C |
| 207980 | Oil and Gas Field services | 1389 | C |
| 207987 | Oil and Gas Field services | 1389 | C |
| 207988 | Oil and Gas Field services | 1389 | C |
| 206645 | Single−family Housing Construction | 1521 | C |
| 206734 | Single−family Housing Construction | 1521 | C |
| 206881 | Single−family Housing Construction | 1521 | C |
| 207076 | Single−family Housing Construction | 1521 | C |
| 207162 | Single−family Housing Construction | 1521 | C |
| 207207 | Single−family Housing Construction | 1521 | C |
| 207232 | Single−family Housing Construction | 1521 | C |
| 207302 | Single−family Housing Construction | 1521 | C |
| 207367 | Single−family Housing Construction | 1521 | C |
| 207431 | Single−family Housing Construction | 1521 | C |
| 207505 | Single−family Housing Construction | 1521 | C |
| 207671 | Single−family Housing Construction | 1521 | C |
| 207877 | Single−family Housing Construction | 1521 | C |
| 207206 | Nonresidential Construction | 1542 | C |
| 207583 | Nonresidential Construction | 1542 | C |
| 207289 | Highway and Street Construction | 1611 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207371 | Highway and Street Construction | 1611 | C |
| 207668 | Prepared Feeds For Animals and Fowls | 2048 | C |
| 207537 | Wood Kitchen Cabinets Manufacturing | 2434 | C |
| 207164 | Commercial Printing NEC | 2759 | C |
| 206850 | Sheet Metal Work Manufacturing | 3444 | C |
| 207107 | Special Industries Machinery Manufacturing | 3559 | C |
| 207883 | Storage Batteries Manufacturing | 3691 | C |
| 207634 | Aircraft Equipment Manufacturing | 3728 | C |
| 206672 | Signs and Advertising Display Manufacturing | 3993 | C |
| 206907 | Manufacturing Industries, nec | 3999 | C |
| 207263 | Manufacturing Industries, nec | 3999 | C |
| 206498 | Combination Utility Services, nec | 4939 | C |
| 207046 | Refuse Systems | 4953 | C |
| 207047 | Refuse Systems | 4953 | C |
| 207959 | Refuse Systems | 4953 | C |
| 207298 | Farm and Garden Machinery | 5083 | C |
| 207857 | Farm and Garden Machinery | 5083 | C |
| 206456 | Gasoline Service Station | 5541 | C |
| 206748 | Gasoline Service Station | 5541 | C |
| 207279 | Gasoline Service Station | 5541 | C |
| 207483 | Gasoline Service Station | 5541 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207686 | Gasoline Service Station | 5541 | C |
| 207951 | Recreational vehicle sales and repair | 5561 | C |
| 207952 | Recreational vehicle sales and repair | 5561 | C |
| 207288 | Mobile Home Park | 6515 | C |
| 207503 | Mobile Home Park | 6515 | C |
| 207633 | Mobile Home Park | 6515 | C |
| 207157 | Photofinishing Laboratory | 7384 | C |
| 206729 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207332 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207569 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207590 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207629 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207643 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207673 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207842 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206562 | Auto Truck Repair Service | 7538 | C |
| 206709 | Auto Truck Repair Service | 7538 | C |
| 206710 | Auto Truck Repair Service | 7538 | C |
| 206730 | Auto Truck Repair Service | 7538 | C |
| 206975 | Auto Truck Repair Service | 7538 | C |
| 207253 | Auto Truck Repair Service | 7538 | C |
| 207262 | Auto Truck Repair Service | 7538 | C |
| 207337 | Auto Truck Repair Service | 7538 | C |
| 207352 | Auto Truck Repair Service | 7538 | C |
| 207429 | Auto Truck Repair Service | 7538 | C |
| 207562 | Auto Truck Repair Service | 7538 | C |
| 207591 | Auto Truck Repair Service | 7538 | C |
| 207611 | Auto Truck Repair Service | 7538 | C |
| 207648 | Auto Truck Repair Service | 7538 | C |
| 206844 | Car Wash | 7542 | C |
| 206847 | Car Wash | 7542 | C |
| 207333 | Car Wash | 7542 | C |
| 206909 | Repair Services, Nec | 7699 | C |
| 207058 | Repair Services, Nec | 7699 | C |
| 207063 | Repair Services, Nec | 7699 | C |
| 207067 | Repair Services, Nec | 7699 | C |
| 207189 | Repair Services, Nec | 7699 | C |
| 207620 | Repair Services, Nec | 7699 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207636 | Repair Services, Nec | 7699 | C |
| 207674 | Repair Services, Nec | 7699 | C |
| 207879 | Golf Course | 7992 | C |
| 207880 | Golf Course | 7992 | C |

## Regulated Confined Animal Feeding Operations Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 2001823 | Fort Hays State University Farm | A−SHEL−M001 | C |
| 2002504 | Ksu Agricultural Research Ctr. | A−SHEL−B001 | C |

## Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000253 | Midland Marketing | 03076 | B |
| 3000514 | Hays Medical Center, Hadley Campus | 06173 | B |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3001808 | Army Reserve Center | 27022 | B |
| 3001914 | Kang | 27458 | B |
| 3002405 | Midland Marketing Coop | 40217 | B |
| 3002745 | Quality Cleaners | 81409 | B |
| 3002770 | Thompson Oil Co | 81464 | B |
| 3000146 | Home Oil Supply | 01737 | C |
| 3000285 | Frontier Quick Mart | 03487 | C |
| 3000344 | Allied Inc | 04204 | C |
| 3000398 | A A Coors | 04941 | C |
| 3000415 | Werth Tank Service | 05077 | C |
| 3000548 | Dons 66 | 06341 | C |
| 3000600 | Mr Quick Mini Mart | 06528 | C |
| 3000606 | Allied Asphalt Inc | 06548 | C |
| 3000644 | Love's #44 | 06728 | C |
| 3000675 | Coastal Mart #2501 | 06843 | C |
| 3000676 | Coastal Mart #2502 | 06844 | C |
| 3000677 | Coastal Mart #2504 | 06845 | C |
| 3000710 | Asb Oil Inc | 07026 | C |
| 3000847 | Hays Fire Dept | 08777 | C |
| 3000848 | Hays, Parks Dept | 08778 | C |
| 3000849 | Hays, Service Dept | 08779 | C |
| 3000950 | Art's Apco | 11481 | C |
| 3000974 | Brown's Service Center | 12215 | C |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3001017 | Haliburton | 13507 | C |
| 3001023 | Kansas Mobile Glass | 13868 | C |
| 3001091 | James Motor C0 | 15972 | C |
| 3001122 | Leroy's Diamond Shamrock | 17115 | C |
| 3001124 | Kerr−mcgee #6295 ("al's") | 17141 | C |
| 3001140 | Karst Well Drilling | 17679 | C |
| 3001200 | Speedy Lube Oil | 20216 | C |
| 3001203 | Standish Ford, Inc. | 20268 | C |
| 3001364 | Fort Hays St Univ, Motor Pool | 24183 | C |
| 3001391 | Apco #641, Vine St | 25028 | C |
| 3001423 | Amoco #9533 | 25226 | C |
| 3001490 | J C Penney | 25574 | C |
| 3001537 | Mr Quick #2 | 25793 | C |
| 3001594 | Ideal Trucking | 26072 | C |
| 3001604 | Johnson Co, Executive Airport | 26115 | C |
| 3001680 | Kmart #9067 | 26436 | C |
| 3001750 | Kdot, Hays | 26687 | C |
| 3001819 | Ups, Hays | 27053 | C |
| 3001835 | Tmp−marian High School, Hays, 1701 Hall | 27111 | C |
| 3001864 | Fort Hays Exp. Station | 27256 | C |
| 3002098 | Us Supply | 28561 | C |
| 3002124 | Halliburton Serv | 28713 | C |
| 3002258 | Apc0, Main St | 29361 | C |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3002343 | Thrift Distributors | 29733 | C |
| 3002417 | Janzen Oil − East Bulk | 41536 | C |
| 3002426 | Davis Mud | 42358 | C |
| 3002625 | Hutchison Vending Co | 80813 | C |
| 3002645 | Hays Asphalt Construction Inc. | 81166 | C |
| 3002649 | Midway Cable Tv Co. | 81178 | C |
| 3002748 | Roth Electronics | 81416 | C |
| 3002776 | M D Inc | 81479 | C |
| 3002789 | Ellis Co Emergency Management | 81507 | C |
| 3002799 | Circle S Trailer Sales Inc | 81553 | C |
| 3002876 | Dowell Site, Former | 81780 | C |

## Regulated Identified Contaminated Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 7000900 | CLARK'S WELL SITE | C602670625 | B |
| 7000885 | CROSS MANUFACTURING CO., INC. | C602600014 | C |
| 7000887 | NORGE'S DRYCLEANERS | C602600034 | C |
| 7000888 | PERMIAN OIL | C602600037 | C |
| 7000892 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | C |
| 7000893 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | C |
| 7000894 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | C |

## Regulated Identified Contaminated Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 7000896 | MIDWEST ENERGY, INC. | C602603013 | C |
| 7000897 | DOWELL−SCHLUMBERGER FACILITY (FORMER) | C602603014 | C |
| 7000901 | AUTO HOUSE BODY SHOP DISPOSAL SITE | C602671101 | C |

## Regulated Solid Waste Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 5000769 | City of Hays | 0747−S | C |

## Regulated Waste Water Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 6000049 | MEADOW ACRES MOBILE HOME PARK | C−SH16−OO02 | C |
| 6000291 | KDHE−SOUTH HAYS GROUNDWATER REMED. | I−SH16−PO06 | C |
| 6000888 | ROME CORPORATION / WESTERN WELL SERVICE | I−SH16−NP03 | C |
| 6000891 | KDHE/BER (DRY CLEANING TRUST FUND) HAYS | I−SH16−PO10 | C |
| 6001723 | HAYS WWTF | M−SH16−OO02 | C |
| 6001724 | HAYS WWTF | M−SH16−OO02 | C |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **371** |
| Diversion Id's: | **024** |
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## Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

# Added Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Added Potential Site Sources

| Source No. | Source Name | SIC ID | Zone |
|---|---|---|---|
| 9000650 | football field | 10073 | B |
| 9000648 | oil and gas wells | 1381 | B |
| 9000647 | underground gas oil pipelines | 4600 | B |
| 9000651 | Fuel, grain and feed and hay storage | 10026 | C |
| 9000649 | pastureland with stock cattle | 10080 | C |
| 9000646 | dryland wheat field | 111 | C |

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## Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# Potential Contaminants Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Number of Unregulated Site Sources Identified for each Contaminant Category

| MicroBiological | Pesticides | IOC's | SOC's | VOC's | Nitrates |
|---|---|---|---|---|---|
| 33 | 7 | 102 | 44 | 54 | 30 |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

Public Water Supply: **HAYS, CITY OF**
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## Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

**A** − Microbiolgical **B** − Inorganic Compounds **B1** − Eutrophication − Phosphorous
**B2** − Sedimentation **B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

# Potential Contaminants Listing

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Unregulated Identified Site Sources and associated Potential Contaminant Category

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 3728 | Aircraft Equipment Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 7538 | Auto Truck Repair Service | Inorganics, VOCs | B |
| " | " | " | D |
| 7542 | Car Wash | Inorganics, VOCs | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | D |
| 211 | Cattle Farm | Sanitary, Fertilizers TSS, pesticides, Erosion and sedimentation | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 4939 | Combination Utility Services, nec | Inorganics, VOCs | B |
| " | " | " | D |
| 5541 | Gasoline Service Station | Inorganics, VOCs | B |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 5541 | Gasoline Service Station | Inorganics, VOCs | D |
| 7992 | Golf Course | Fertilizers and pesticides | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 1611 | Highway and Street Construction | Sedimentation | B2 |
| 4212 | Local Trucking, without Storage | VOCs | D |
| 3599 | Machinery, Except Electrical Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 3999 | Manufacturing Industries, nec | inorganics, VOCs | B |
| " | " | " | D |
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B* |
| 1542 | Nonresidential Construction | Sedimentation | B2 |
| 1389 | Oil and Gas Field services | Oil, Salt Water | B |
| " | " | " | C |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 7384 | Photofinishing Laboratory | NA | B |
| " | " | " | D |
| 3444 | Sheet Metal Work Manufacturing | Metals and TSS, VOCs and metal etch | B |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |
| 3559 | Special Industries Machinery Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 3691 | Storage Batteries Manufacturing | Inorganics, caustics, VOCs | B |
| " | " | " | D |
| 2439 | Structural Wood members Manufacturing | TSS, VOCs | B |
| " | " | " | D |
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | B |
| " | " | " | D |
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | A |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | B |
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | B |
| " | " | " | D |
| 752 | Animal Specialty Services | Sanitary, fertilizers | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| 2759 | Commercial Printing NEC | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 2752 | Commercial Printing−Lithographic | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 5083 | Farm and Garden Machinery | inorganics | B |
| 2711 | Newspapers Publishing and Printing | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 2048 | Prepared Feeds For Animals and Fowls | Sanitary, Nitrates, phosphorous and pesticides | A |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 2048 | Prepared Feeds For Animals and Fowls | Sanitary, Nitrates, phosphorous and pesticides | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 5561 | Recreational vehicle sales and repair | Inorganics | B |
| 4953 | Refuse Systems | ALL | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |
| " | " | " | C* |
| " | " | " | D |
| 7699 | Repair Services, Nec | inorganics | B |

| | |
|---|---|
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## Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

# Protection Measures

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 3728 | Aircraft Equipment Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 464 and State or federal Storm water pollution prevention regulations |
| 7538 | Auto Truck Repair Service | Inorganics, VOCs | Discharge to POTW. Manage oil products and used oil so that it is not in contact with water | 40 CFR 442 and |
| 7542 | Car Wash | Inorganics, VOCs | Install and maintain sediment and grease traps where appropriate | 40 CFR 442 |
| 211 | Cattle Farm | Sanitary, Fertilizers TSS, pesticides, Erosion and sedimentation | Proper application of fertilizers and pesticides. Proper cleaning of equipment and disposal of chemicals. Maintain riparian areas along waterways and keep cattle out of these areas. Proper Waste Management and Grazing Management. | KDHE−Livestock Waste Management Section, KAR 28−16, KDA, County Soil Conservation District, NRCS |
| 4939 | Combination Utility Services, nec | Inorganics, VOCs | Maintain secondary containment for fuel storage and fueling areas. Maintain and inspect. Effect repairs promptly | NA |
| 5541 | Gasoline Service Station | Inorganics, VOCs | Maintain area to minimize fuel contamination | NA |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 7992 | Golf Course | Fertilizers and pesticides | Proper application of fertilizers and pesticides. Proper cleaning of equipment and disposal of chemicals. | KDHE, KAR 28−16 |
| 1611 | Highway and Street Construction | Sedimentation | Erosion and Sediment Control | KAR 28−16, KDHE |
| 4212 | Local Trucking, without Storage | VOCs | Discharge to a POTW | State or federal Storm water pollution prevention regulations |
| 3599 | Machinery, Except Electrical Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 3999 | Manufacturing Industries, nec | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | Discharge to POTW. Minimize use of lawn chemicals | KAR 28−5 |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 1542 | Nonresidential Construction | Sedimentation | Erosion and Sediment Control | KAR 28−16, KDHE |
| 1389 | Oil and Gas Field services | Oil, Salt Water | Proper management of production wastes | KAR 28−41, 45, 40 CFR 435 |
| 7384 | Photofinishing Laboratory | NA | Discharge to POTW. Recycle chemicals | CFR 40 459 |
| 3444 | Sheet Metal Work Manufacturing | Metals and TSS, VOCs and metal etch | Minimize outdoor storage and control storm water runoff. Pre−treat process wastewater prior to discharge to POTW | 40 CFR 464 and State or federal Storm water pollution prevention regulations |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers | KAR 28−48, KDHE, KDEM |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 3559 | Special Industries Machinery Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 3691 | Storage Batteries Manufacturing | Inorganics, caustics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct. Minimize outdoor storage | 40 CFR 461 and State or federal Storm water pollution prevention regulations |
| 2439 | Structural Wood members Manufacturing | TSS, VOCs | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly | NA |
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | Discharge to POT | NA |
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 752 | Animal Specialty Services | Sanitary, fertilizers | Collect and treat wastes. | NA |
| 2759 | Commercial Printing NEC | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 2752 | Commercial Printing−Lithographic | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 5083 | Farm and Garden Machinery | inorganics | Discharge to POTW | NA |
| 2711 | Newspapers Publishing and Printing | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 2048 | Prepared Feeds For Animals and Fowls | Sanitary, Nitrates, phosphorous and pesticides | Maintain animal feeding areas and feed storage areas to minimize contact with storm water. Collect and treat process wastes. | 40 CFR 412 and State or federal Storm water pollution prevention regulations |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 5561 | Recreational vehicle sales and repair | Inorganics | Discharge to a POTW. Store oils and lubricants properly | Discharge to a POTW. Store oils and lubricants properly |
| 4953 | Refuse Systems | ALL | Store wastes properly in order to minimize contact with storm water. | Maintain the lagoon or storage vessel properly. Control storm water run on and runoff to minimize contamination of storm water |
| 7699 | Repair Services, Nec | inorganics | Discharge to POTW | NA |

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## Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

# Assessment Analysis

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Ground Water Single Well Analysis

**A** − Microbiolgical **B** − Inorganic Compounds
**B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 1 | Is the well under the influence of surface water? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Does the well meet KS water well construction standards? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Is the depth of the well less than 30 feet? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Are there unplugged, abandoned water wells present in Zone A? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Is there gravel pack within 20 feet of the surface? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Does a PWS own or control Zone A? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Does Zone A consist entirely of native grass? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 8 | Is there a contaminated well in the Zone A? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Is a class V UIC well present? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | Are any commercial, industrial, or urban areas present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 11 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 12 | Are any non−farm home sites present in Zone B? | Yes | 1 | 0 | 1 | 0 | 1 | 0 |
| 13 | Do all the non−farm home sites have a water quality protection plan? | No | 1 | 0 | 1 | 0 | 1 | 0 |
| 14 | Are any farmsteads present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Do all farmsteads have a water quality protection plan? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Does Zone B consist entirely of native grass? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 17 | Is there grazing livestock in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 18 | Do all the livestock producers have water quality protection measures in place? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Is there livestock confinement in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | Is each confined animal feeding operation registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 | Is there corn or grain sorghum production in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Are corn/grain sorghum nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | Are any orchards present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 | Are orchard nutrient and pesticide plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B? | Yes | 1 | 1 | 1 | 0 | 0 | 0 |
| 26 | Is there a railroad or major highway in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 27 | Is there oil production in Zone B or C? | Yes | 0 | 1 | 0 | 1 | 0 | 1 |
| 28 | Do coarse textured soils predominate Zones A, B and C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | Is an irrigation well located in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 30 | Is a wastewater treatment facility in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 31 | Is a solid waste landfill in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 32 | Are there unplugged, abandoned water wells present in Zone B or C? | Yes | 1 | 0 | 0 | 0 | 0 | 0 |
| 33 | Are any commercial, industrial, or urban areas present in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 34 | Are water quality protection plans in use for each site/area? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 35 | Is there livestock confinement in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 0 |
| 36 | Is each confined livestock facility registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 37 | Do all the livestock producers have water quality protection measures in place? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 38 | Are cropland nutrient management plans in place? | No | 0 | 0 | 1 | 0 | 0 | 0 |
| 39 | Are cropland pesticide management plans in place? | No | 0 | 0 | 0 | 0 | 1 | 0 |
| 40 | Does a perennial stream flow into Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 41 | Are watershed water quality protection plans in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **371** |
| Diversion Id's: | **024** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 14:35:43** |

## Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

# Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Comments for Unregulated Sites

| Potential Contaminant Site No. | Site Comments | Author |
|---|---|---|
| 207639 | TEST COMMENT FOR 207639 | Derrick Beasley |

## Comments for Regulated Confined Animal Feeding Operations Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fort Hays State University Farm | 2001823 | This is a small dairy facility with no groundwater monitoring. | Nicole Fisher |
| Ksu Agricultural Research Ctr. | 2002504 | This cattle livestock facility has no water quality protection plans. | Nicole Fisher |

## Comments for Regulated Hazardous Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Leaking Storage Tank Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| A A Coors | 3000398 | the site is closed from a diesel leak in 1991. No groundwater contamination was suspected. | Nicole Fisher |
| Dons 66 | 3000548 | Tank removed | Mary Howes |
| Haliburton | 3001017 | the site is currently being monitored from a xylene leak in 1989. There are 2 PWS wells and 4 domestic water wells within .25 miles downgradient of the leak. | Nicole Fisher |
| Home Oil Supply | 3000146 | The site is active from a gasoline leak in 1998. Low levels of VOC's are present in the groundwater. | Nicole Fisher |
| Karst Well Drilling | 3001140 | The site is active from a gasoline leak in 1995. Groundwater pollution did occur. | Nicole Fisher |
| Mr Quick Mini Mart | 3000600 | The site is currently being monitored from a gasoline leak in 1992. There are 2 PWS wells and 3 domestic water wells within .25 miles downgradient of the leak. | Nicole Fisher |
| Speedy Lube Oil | 3001200 | The site is closed; no leakage was detected. | Nicole Fisher |

## Comments for Regulated Identified Contaminated Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| MIDWEST ENERGY, INC. | 7000896 | The soil was contaminated with mercury and the contamination has been resolved. | Nicole Fisher |
| PERMIAN OIL | 7000888 | The soil and groundwater was contaminated with VOC's and observation wells were established in 1986. | Nicole Fisher |
| WEST 8TH STREET (HAYS WELLS − 20,27,28) | 7000892 | Soil, groundwater, PWS, and private wells were contaminated with VOC from an unknown source. For more information please contact Robert Jurgens (785) 291−3250 | Nicole Fisher |

## Comments for Regulated Solid Waste Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| City of Hays | 5000769 | This solid waste facility is used for composting materials. No groundwater monitoring is required. | Nicole Fisher |

## Comments for Regulated Waste Water Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| KDHE/BER (DRY CLEANING TRUST FUND) HAYS | 6000891 | This facility frequently discharges water with contaminants that are within the recommended levels. | Nicole Fisher |
| ROME CORPORATION / WESTERN WELL SERVICE | 6000888 | This facility uses non−discharging lagoons. | Nicole Fisher |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**
Diversion Id's: **024**
Status: **Accepted**
Submit Date: **2002−12−10 14:35:43**

## Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

# Added Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Comments for Added Contaminant Sites

| Added Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fuel, grain and feed and hay storage | 9000651 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| dryland wheat field | 9000646 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| football field | 9000650 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| oil and gas wells | 9000648 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| pastureland with stock cattle | 9000649 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| underground gas oil pipelines | 9000647 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **371** |
| Diversion Id's: | **024** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 14:35:43** |

## Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# Analysis Question Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **371**

## Comments for Analysis Questions

| Analysis Question | Question Comments | Author |
|---|---|---|
| N/A or Unknown | Wells #17,21,24,29,30 are only used for emergencies. | Nicole Fisher |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **372** |
| Diversion Id's: | **021, 030, 017, 029, 029** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:47:32** |

## Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication − phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi−quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

# Executive Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Susceptibility Likelihood Scores for Assessment Area

| Contaminant Category | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|
| Susceptibility Likelihood Score − SLS | 57 | 56 | 51 | 60 | 51 | 59 |
| SLS Range | Mid | Mid | Low | Mid | Low | Mid |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

## Susceptibility Likelihood Range

| SLS Range | |
|---|---|
| **0−50** | **Low Susceptibility** |
| **51−80** | **Moderate Susceptibility** |
| **81−100** | **High Susceptibility** |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **372** |
| Diversion Id's: | **021, 030, 017, 029, 029** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:47:32** |

## Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a100−foot radius around a groundwater well and a 1000−foot radius around a surface water intake. Zone B is a 2000−foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2−mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

# Potential Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206997 | Veterinary Services, Specialties | 742 | B |
| 206955 | Animal Specialty Services | 752 | B |
| 207208 | Oil and Gas Field services | 1389 | B |
| 207987 | Oil and Gas Field services | 1389 | B |
| 207988 | Oil and Gas Field services | 1389 | B |
| 206645 | Single−family Housing Construction | 1521 | B |
| 207207 | Single−family Housing Construction | 1521 | B |
| 207206 | Nonresidential Construction | 1542 | B |
| 206672 | Signs and Advertising Display Manufacturing | 3993 | B |
| 207189 | Repair Services, Nec | 7699 | B |
| 206464 | Cattle Farm | 211 | C |
| 207646 | Veterinary Services, Specialties | 742 | C |
| 207647 | Veterinary Services, Specialties | 742 | C |
| 207937 | Veterinary Services, Specialties | 742 | C |
| 207938 | Veterinary Services, Specialties | 742 | C |
| 207939 | Veterinary Services, Specialties | 742 | C |
| 207982 | Veterinary Services, Specialties | 742 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206465 | Animal Specialty Services | 752 | C |
| 206916 | Animal Specialty Services | 752 | C |
| 207684 | Animal Specialty Services | 752 | C |
| 207886 | Animal Specialty Services | 752 | C |
| 206469 | Oil and Gas Field services | 1389 | C |
| 206470 | Oil and Gas Field services | 1389 | C |
| 206471 | Oil and Gas Field services | 1389 | C |
| 206472 | Oil and Gas Field services | 1389 | C |
| 206473 | Oil and Gas Field services | 1389 | C |
| 206474 | Oil and Gas Field services | 1389 | C |
| 206475 | Oil and Gas Field services | 1389 | C |
| 206897 | Oil and Gas Field services | 1389 | C |
| 207045 | Oil and Gas Field services | 1389 | C |
| 207142 | Oil and Gas Field services | 1389 | C |
| 207256 | Oil and Gas Field services | 1389 | C |
| 207379 | Oil and Gas Field services | 1389 | C |
| 207380 | Oil and Gas Field services | 1389 | C |
| 207622 | Oil and Gas Field services | 1389 | C |
| 207639 | Oil and Gas Field services | 1389 | C |
| 207640 | Oil and Gas Field services | 1389 | C |
| 207841 | Oil and Gas Field services | 1389 | C |
| 207855 | Oil and Gas Field services | 1389 | C |
| 207935 | Oil and Gas Field services | 1389 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207980 | Oil and Gas Field services | 1389 | C |
| 206600 | Single−family Housing Construction | 1521 | C |
| 206621 | Single−family Housing Construction | 1521 | C |
| 206627 | Single−family Housing Construction | 1521 | C |
| 206734 | Single−family Housing Construction | 1521 | C |
| 206881 | Single−family Housing Construction | 1521 | C |
| 207076 | Single−family Housing Construction | 1521 | C |
| 207115 | Single−family Housing Construction | 1521 | C |
| 207140 | Single−family Housing Construction | 1521 | C |
| 207162 | Single−family Housing Construction | 1521 | C |
| 207232 | Single−family Housing Construction | 1521 | C |
| 207302 | Single−family Housing Construction | 1521 | C |
| 207367 | Single−family Housing Construction | 1521 | C |
| 207431 | Single−family Housing Construction | 1521 | C |
| 207505 | Single−family Housing Construction | 1521 | C |
| 207671 | Single−family Housing Construction | 1521 | C |
| 207677 | Single−family Housing Construction | 1521 | C |
| 207877 | Single−family Housing Construction | 1521 | C |
| 207902 | Single−family Housing Construction | 1521 | C |
| 207903 | Single−family Housing Construction | 1521 | C |
| 207918 | Single−family Housing Construction | 1521 | C |
| 207583 | Nonresidential Construction | 1542 | C |
| 207678 | Nonresidential Construction | 1542 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206476 | Highway and Street Construction | 1611 | C |
| 206477 | Highway and Street Construction | 1611 | C |
| 207289 | Highway and Street Construction | 1611 | C |
| 207371 | Highway and Street Construction | 1611 | C |
| 207668 | Prepared Feeds For Animals and Fowls | 2048 | C |
| 207537 | Wood Kitchen Cabinets Manufacturing | 2434 | C |
| 206485 | Structural Wood members Manufacturing | 2439 | C |
| 206486 | Prefabricated Wood Buildings Manufacturing | 2452 | C |
| 207736 | Newspapers Publishing and Printing | 2711 | C |
| 207731 | Commercial Printing−Lithographic | 2752 | C |
| 207164 | Commercial Printing NEC | 2759 | C |
| 207782 | Commercial Printing NEC | 2759 | C |
| 207792 | Commercial Printing NEC | 2759 | C |
| 207793 | Commercial Printing NEC | 2759 | C |
| 206850 | Sheet Metal Work Manufacturing | 3444 | C |
| 207107 | Special Industries Machinery Manufacturing | 3559 | C |
| 206489 | Machinery, Except Electrical Manufacturing | 3599 | C |
| 207921 | Machinery, Except Electrical Manufacturing | 3599 | C |
| 207883 | Storage Batteries Manufacturing | 3691 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207634 | Aircraft Equipment Manufacturing | 3728 | C |
| 207974 | Aircraft Equipment Manufacturing | 3728 | C |
| 206602 | Signs and Advertising Display Manufacturing | 3993 | C |
| 206858 | Signs and Advertising Display Manufacturing | 3993 | C |
| 207936 | Signs and Advertising Display Manufacturing | 3993 | C |
| 206907 | Manufacturing Industries, nec | 3999 | C |
| 207263 | Manufacturing Industries, nec | 3999 | C |
| 206491 | Local Trucking, without Storage | 4212 | C |
| 206492 | Local Trucking, without Storage | 4212 | C |
| 206498 | Combination Utility Services, nec | 4939 | C |
| 207046 | Refuse Systems | 4953 | C |
| 207047 | Refuse Systems | 4953 | C |
| 207885 | Refuse Systems | 4953 | C |
| 207959 | Refuse Systems | 4953 | C |
| 207298 | Farm and Garden Machinery | 5083 | C |
| 207857 | Farm and Garden Machinery | 5083 | C |
| 207923 | Farm and Garden Machinery | 5083 | C |
| 207934 | Farm and Garden Machinery | 5083 | C |
| 206456 | Gasoline Service Station | 5541 | C |
| 206510 | Gasoline Service Station | 5541 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206748 | Gasoline Service Station | 5541 | C |
| 206790 | Gasoline Service Station | 5541 | C |
| 206794 | Gasoline Service Station | 5541 | C |
| 206816 | Gasoline Service Station | 5541 | C |
| 207279 | Gasoline Service Station | 5541 | C |
| 207483 | Gasoline Service Station | 5541 | C |
| 207686 | Gasoline Service Station | 5541 | C |
| 207732 | Gasoline Service Station | 5541 | C |
| 207941 | Gasoline Service Station | 5541 | C |
| 207951 | Recreational vehicle sales and repair | 5561 | C |
| 207952 | Recreational vehicle sales and repair | 5561 | C |
| 206524 | Mobile Home Park | 6515 | C |
| 206525 | Mobile Home Park | 6515 | C |
| 207288 | Mobile Home Park | 6515 | C |
| 207503 | Mobile Home Park | 6515 | C |
| 207633 | Mobile Home Park | 6515 | C |
| 207904 | Mobile Home Park | 6515 | C |
| 207157 | Photofinishing Laboratory | 7384 | C |
| 206687 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 206729 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207332 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207569 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207590 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207629 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207643 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207673 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207842 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207929 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 206562 | Auto Truck Repair Service | 7538 | C |
| 206709 | Auto Truck Repair Service | 7538 | C |
| 206710 | Auto Truck Repair Service | 7538 | C |
| 206730 | Auto Truck Repair Service | 7538 | C |
| 206825 | Auto Truck Repair Service | 7538 | C |
| 206975 | Auto Truck Repair Service | 7538 | C |
| 207096 | Auto Truck Repair Service | 7538 | C |
| 207253 | Auto Truck Repair Service | 7538 | C |
| 207262 | Auto Truck Repair Service | 7538 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207337 | Auto Truck Repair Service | 7538 | C |
| 207352 | Auto Truck Repair Service | 7538 | C |
| 207429 | Auto Truck Repair Service | 7538 | C |
| 207562 | Auto Truck Repair Service | 7538 | C |
| 207591 | Auto Truck Repair Service | 7538 | C |
| 207611 | Auto Truck Repair Service | 7538 | C |
| 207648 | Auto Truck Repair Service | 7538 | C |
| 206844 | Car Wash | 7542 | C |
| 206847 | Car Wash | 7542 | C |
| 207333 | Car Wash | 7542 | C |
| 207747 | Car Wash | 7542 | C |
| 206594 | Repair Services, Nec | 7699 | C |
| 206835 | Repair Services, Nec | 7699 | C |
| 206909 | Repair Services, Nec | 7699 | C |
| 207058 | Repair Services, Nec | 7699 | C |
| 207063 | Repair Services, Nec | 7699 | C |
| 207067 | Repair Services, Nec | 7699 | C |
| 207620 | Repair Services, Nec | 7699 | C |
| 207636 | Repair Services, Nec | 7699 | C |
| 207674 | Repair Services, Nec | 7699 | C |
| 207879 | Golf Course | 7992 | C |
| 207880 | Golf Course | 7992 | C |

## Regulated Confined Animal Feeding Operations Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 2001823 | Fort Hays State University Farm | A−SHEL−M001 | C |

## Regulated Confined Animal Feeding Operations Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 2002504 | Ksu Agricultural Research Ctr. | A−SHEL−B001 | C |

## Regulated Hazardous Waste Potential Site Sources

| Did Not Contain Any Of These Potential Site Sources |
|---|

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000644 | Love's #44 | 06728 | B |
| 3000676 | Coastal Mart #2502 | 06844 | B |
| 3000677 | Coastal Mart #2504 | 06845 | B |
| 3001023 | Kansas Mobile Glass | 13868 | B |
| 3001750 | Kdot, Hays | 26687 | B |
| 3001835 | Tmp−marian High School, Hays, 1701 Hall | 27111 | B |
| 3002258 | Apc0, Main St | 29361 | B |
| 3002876 | Dowell Site, Former | 81780 | B |
| 3000146 | Home Oil Supply | 01737 | C |
| 3000253 | Midland Marketing | 03076 | C |
| 3000285 | Frontier Quick Mart | 03487 | C |
| 3000344 | Allied Inc | 04204 | C |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000398 | A A Coors | 04941 | C |
| 3000415 | Werth Tank Service | 05077 | C |
| 3000514 | Hays Medical Center, Hadley Campus | 06173 | C |
| 3000531 | Hays Medical Center, St Anthony | 06258 | C |
| 3000548 | Dons 66 | 06341 | C |
| 3000600 | Mr Quick Mini Mart | 06528 | C |
| 3000601 | Frontier Quick Mart | 06529 | C |
| 3000606 | Allied Asphalt Inc | 06548 | C |
| 3000675 | Coastal Mart #2501 | 06843 | C |
| 3000710 | Asb Oil Inc | 07026 | C |
| 3000847 | Hays Fire Dept | 08777 | C |
| 3000848 | Hays, Parks Dept | 08778 | C |
| 3000849 | Hays, Service Dept | 08779 | C |
| 3000950 | Art's Apco | 11481 | C |
| 3000974 | Brown's Service Center | 12215 | C |
| 3000993 | Holiday 66 Food Plaza #2 | 12847 | C |
| 3001017 | Haliburton | 13507 | C |
| 3001090 | James Lincoln Mercury Gmc | 15968 | C |
| 3001091 | James Motor C0 | 15972 | C |
| 3001093 | Golden Ox Truck Stop | 16028 | C |
| 3001122 | Leroy's Diamond Shamrock | 17115 | C |
| 3001124 | Kerr−mcgee #6295 ("al's") | 17141 | C |
| 3001140 | Karst Well Drilling | 17679 | C |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3001200 | Speedy Lube Oil | 20216 | C |
| 3001203 | Standish Ford, Inc. | 20268 | C |
| 3001354 | Yuasa−exide | 24084 | C |
| 3001364 | Fort Hays St Univ, Motor Pool | 24183 | C |
| 3001391 | Apco #641, Vine St | 25028 | C |
| 3001423 | Amoco #9533 | 25226 | C |
| 3001427 | Amoco #9667 | 25232 | C |
| 3001490 | J C Penney | 25574 | C |
| 3001537 | Mr Quick #2 | 25793 | C |
| 3001604 | Johnson Co, Executive Airport | 26115 | C |
| 3001680 | Kmart #9067 | 26436 | C |
| 3001701 | Texaco #54−107−026 | 26587 | C |
| 3001808 | Army Reserve Center | 27022 | C |
| 3001819 | Ups, Hays | 27053 | C |
| 3001864 | Fort Hays Exp. Station | 27256 | C |
| 3001914 | Kang | 27458 | C |
| 3002015 | Hays Fire Equipment | 28100 | C |
| 3002098 | Us Supply | 28561 | C |
| 3002124 | Halliburton Serv | 28713 | C |
| 3002271 | Wal−mart, Hays | 29420 | C |
| 3002343 | Thrift Distributors | 29733 | C |
| 3002405 | Midland Marketing Coop | 40217 | C |
| 3002417 | Janzen Oil − East Bulk | 41536 | C |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3002426 | Davis Mud | 42358 | C |
| 3002625 | Hutchison Vending Co | 80813 | C |
| 3002645 | Hays Asphalt Construction Inc. | 81166 | C |
| 3002649 | Midway Cable Tv Co. | 81178 | C |
| 3002665 | Golden Plains Trucking | 81218 | C |
| 3002745 | Quality Cleaners | 81409 | C |
| 3002748 | Roth Electronics | 81416 | C |
| 3002770 | Thompson Oil Co | 81464 | C |
| 3002776 | M D Inc | 81479 | C |
| 3002789 | Ellis Co Emergency Management | 81507 | C |
| 3002799 | Circle S Trailer Sales Inc | 81553 | C |

## Regulated Identified Contaminated Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 7000885 | CROSS MANUFACTURING CO., INC. | C602600014 | C |
| 7000887 | NORGE'S DRYCLEANERS | C602600034 | C |
| 7000888 | PERMIAN OIL | C602600037 | C |
| 7000892 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | C |
| 7000893 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | C |
| 7000894 | WEST 8TH STREET (HAYS WELLS − 20,27,28) | C602603011 | C |
| 7000896 | MIDWEST ENERGY, INC. | C602603013 | C |

## Regulated Identified Contaminated Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 7000897 | DOWELL−SCHLUMBERGER FACILITY (FORMER) | C602603014 | C |
| 7000900 | CLARK'S WELL SITE | C602670625 | C |
| 7000901 | AUTO HOUSE BODY SHOP DISPOSAL SITE | C602671101 | C |

## Regulated Solid Waste Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 5000725 | Ellis County HHW Waste Program | 0704−S | C |
| 5000769 | City of Hays | 0747−S | C |

## Regulated Waste Water Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 6000049 | MEADOW ACRES MOBILE HOME PARK | C−SH16−OO02 | C |
| 6000291 | KDHE−SOUTH HAYS GROUNDWATER REMED. | I−SH16−PO06 | C |
| 6000888 | ROME CORPORATION / WESTERN WELL SERVICE | I−SH16−NP03 | C |
| 6000890 | J.C. PENNEY COMPANY−HAYS | I−SH16−PO08 | C |
| 6000891 | KDHE/BER (DRY CLEANING TRUST FUND) HAYS | I−SH16−PO10 | C |
| 6001723 | HAYS WWTF | M−SH16−OO02 | C |
| 6001724 | HAYS WWTF | M−SH16−OO02 | C |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
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## Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

# Added Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Added Potential Site Sources

| Source No. | Source Name | SIC ID | Zone |
|---|---|---|---|
| 9000664 | on−site wastewater facility | 10067 | B |
| 9000650 | football field | 10073 | B |
| 9000663 | pastureland with stock cattle | 10080 | B |
| 9000660 | dryland wheat field | 111 | B |
| 9000662 | dryland wheat field | 111 | B |
| 9000648 | oil and gas wells | 1381 | B |
| 9000647 | underground gas oil pipelines | 4600 | B |
| 9000661 | Irrigation equipment, pump site, and well | 10012 | C |
| 9000651 | Fuel, grain and feed and hay storage | 10026 | C |
| 9000649 | pastureland with stock cattle | 10080 | C |
| 9000646 | dryland wheat field | 111 | C |

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## Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# Potential Contaminants Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Number of Unregulated Site Sources Identified for each Contaminant Category

| MicroBiological | Pesticides | IOC's | SOC's | VOC's | Nitrates |
|---|---|---|---|---|---|
| 48 | 8 | 128 | 55 | 70 | 41 |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

Public Water Supply: **HAYS, CITY OF**
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## Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

**A** − Microbiolgical **B** − Inorganic Compounds **B1** − Eutrophication − Phosphorous
**B2** − Sedimentation **B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

# Potential Contaminants Listing

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Unregulated Identified Site Sources and associated Potential Contaminant Category

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 3728 | Aircraft Equipment Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 7538 | Auto Truck Repair Service | Inorganics, VOCs | B |
| " | " | " | D |
| 7542 | Car Wash | Inorganics, VOCs | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | D |
| 211 | Cattle Farm | Sanitary, Fertilizers TSS, pesticides, Erosion and sedimentation | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 4939 | Combination Utility Services, nec | Inorganics, VOCs | B |
| " | " | " | D |
| 5541 | Gasoline Service Station | Inorganics, VOCs | B |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 5541 | Gasoline Service Station | Inorganics, VOCs | D |
| 7992 | Golf Course | Fertilizers and pesticides | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 1611 | Highway and Street Construction | Sedimentation | B2 |
| 4212 | Local Trucking, without Storage | VOCs | D |
| 3599 | Machinery, Except Electrical Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 3999 | Manufacturing Industries, nec | inorganics, VOCs | B |
| " | " | " | D |
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B* |
| 1542 | Nonresidential Construction | Sedimentation | B2 |
| 1389 | Oil and Gas Field services | Oil, Salt Water | B |
| " | " | " | C |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 7384 | Photofinishing Laboratory | NA | B |
| " | " | " | D |
| 2452 | Prefabricated Wood Buildings Manufacturing | TSS | B |
| " | " | " | D |
| 3444 | Sheet Metal Work Manufacturing | Metals and TSS, VOCs and metal etch | B |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |
| 3559 | Special Industries Machinery Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 3691 | Storage Batteries Manufacturing | Inorganics, caustics, VOCs | B |
| " | " | " | D |
| 2439 | Structural Wood members Manufacturing | TSS, VOCs | B |
| " | " | " | D |
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | B |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | D |
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | A |
| " | " | " | B |
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | B |
| " | " | " | D |
| 752 | Animal Specialty Services | Sanitary, fertilizers | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| 2759 | Commercial Printing NEC | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 2752 | Commercial Printing−Lithographic | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 5083 | Farm and Garden Machinery | inorganics | B |
| 2711 | Newspapers Publishing and Printing | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 2711 | Newspapers Publishing and Printing | Inorganics, VOCs, Semi volatiles | D |
| 2048 | Prepared Feeds For Animals and Fowls | Sanitary, Nitrates, phosphorous and pesticides | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C* |
| 5561 | Recreational vehicle sales and repair | Inorganics | B |
| 4953 | Refuse Systems | ALL | A |
| " | " | " | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |
| " | " | " | C* |
| " | " | " | D |
| 7699 | Repair Services, Nec | inorganics | B |

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## Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

# Protection Measures

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 3728 | Aircraft Equipment Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 464 and State or federal Storm water pollution prevention regulations |
| 7538 | Auto Truck Repair Service | Inorganics, VOCs | Discharge to POTW. Manage oil products and used oil so that it is not in contact with water | 40 CFR 442 and |
| 7542 | Car Wash | Inorganics, VOCs | Install and maintain sediment and grease traps where appropriate | 40 CFR 442 |
| 211 | Cattle Farm | Sanitary, Fertilizers TSS, pesticides, Erosion and sedimentation | Proper application of fertilizers and pesticides. Proper cleaning of equipment and disposal of chemicals. Maintain riparian areas along waterways and keep cattle out of these areas. Proper Waste Management and Grazing Management. | KDHE−Livestock Waste Management Section, KAR 28−16, KDA, County Soil Conservation District, NRCS |
| 4939 | Combination Utility Services, nec | Inorganics, VOCs | Maintain secondary containment for fuel storage and fueling areas. Maintain and inspect. Effect repairs promptly | NA |
| 5541 | Gasoline Service Station | Inorganics, VOCs | Maintain area to minimize fuel contamination | NA |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 7992 | Golf Course | Fertilizers and pesticides | Proper application of fertilizers and pesticides. Proper cleaning of equipment and disposal of chemicals. | KDHE, KAR 28−16 |
| 1611 | Highway and Street Construction | Sedimentation | Erosion and Sediment Control | KAR 28−16, KDHE |
| 4212 | Local Trucking, without Storage | VOCs | Discharge to a POTW | State or federal Storm water pollution prevention regulations |
| 3599 | Machinery, Except Electrical Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 3999 | Manufacturing Industries, nec | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | Discharge to POTW. Minimize use of lawn chemicals | KAR 28−5 |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 1542 | Nonresidential Construction | Sedimentation | Erosion and Sediment Control | KAR 28−16, KDHE |
| 1389 | Oil and Gas Field services | Oil, Salt Water | Proper management of production wastes | KAR 28−41, 45, 40 CFR 435 |
| 7384 | Photofinishing Laboratory | NA | Discharge to POTW. Recycle chemicals | CFR 40 459 |
| 2452 | Prefabricated Wood Buildings Manufacturing | TSS | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |
| 3444 | Sheet Metal Work Manufacturing | Metals and TSS, VOCs and metal etch | Minimize outdoor storage and control storm water runoff. Pre−treat process wastewater prior to discharge to POTW | 40 CFR 464 and State or federal Storm water pollution prevention regulations |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 459 and State or federal Storm water pollution prevention regulations |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers | KAR 28−48, KDHE, KDEM |
| 3559 | Special Industries Machinery Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 3691 | Storage Batteries Manufacturing | Inorganics, caustics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct. Minimize outdoor storage | 40 CFR 461 and State or federal Storm water pollution prevention regulations |
| 2439 | Structural Wood members Manufacturing | TSS, VOCs | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly | NA |
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | Discharge to POT | NA |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |
| 752 | Animal Specialty Services | Sanitary, fertilizers | Collect and treat wastes. | NA |
| 2759 | Commercial Printing NEC | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 2752 | Commercial Printing−Lithographic | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 5083 | Farm and Garden Machinery | inorganics | Discharge to POTW | NA |
| 2711 | Newspapers Publishing and Printing | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 2048 | Prepared Feeds For Animals and Fowls | Sanitary, Nitrates, phosphorous and pesticides | Maintain animal feeding areas and feed storage areas to minimize contact with storm water. Collect and treat process wastes. | 40 CFR 412 and State or federal Storm water pollution prevention regulations |
| 5561 | Recreational vehicle sales and repair | Inorganics | Discharge to a POTW. Store oils and lubricants properly | Discharge to a POTW. Store oils and lubricants properly |
| 4953 | Refuse Systems | ALL | Store wastes properly in order to minimize contact with storm water. | Maintain the lagoon or storage vessel properly. Control storm water run on and runoff to minimize contamination of storm water |
| 7699 | Repair Services, Nec | inorganics | Discharge to POTW | NA |

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## Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

# Assessment Analysis

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Ground Water Multiple Wells Analysis

**A** − Microbiolgical **B** − Inorganic Compounds
**B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 1 | Is any well under the influence of surface water? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Do all PWS wells meet KS PWS water well construction standards? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Is any well less than 30 feet deep? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Is gravel pack within 20 feet of any well surface? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Does a PWS own or control all the areas around the wells? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Does Zone B consist entirely of native grass? | No | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | Is there a contaminated well in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Is a class V UIC well present? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Are any commercial, industrial, or urban areas present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 10 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 11 | Are any non−farm home sites present in Zone B? | Yes | 1 | 0 | 1 | 0 | 1 | 0 |
| 12 | Do all the non−farm home sites have a water quality protection plan? | No | 1 | 0 | 1 | 0 | 1 | 0 |
| 13 | Are any farmsteads present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | Do all farmsteads have a water quality protection plan? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Is there grazing livestock in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Have all livestock producers implemented water quality protection measures? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | Is there livestock confinement in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 18 | Is each confined animal feeding operation registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Is there corn or grain sorghum production in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | Are corn/grain sorghum nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 | Are any orchards present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Are orchard nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B? | Yes | 1 | 1 | 1 | 0 | 0 | 0 |
| 24 | Is there a railroad or major highway in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 25 | Is there oil production in Zone B or C? | Yes | 0 | 1 | 0 | 1 | 0 | 1 |
| 26 | Do coarse textured soils predominate Zones A, B and C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 27 | Is an irrigation well located in Zone B or C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 | Is a wastewater treatment facility in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | Is a solid waste landfill in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 30 | Are there unplugged, abandoned water wells present in Zone C? | Yes | 2 | 1 | 1 | 1 | 1 | 1 |
| 31 | Are any commercial, industrial, or urban area present in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 32 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 33 | Is there livestock confinement in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 0 |
| 34 | Is each confined livestock facility registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | Do all the livestock producers have water quality protection measures in place? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 36 | Are cropland nutrient management plans in place? | No | 0 | 0 | 1 | 0 | 0 | 0 |
| 37 | Are cropland pesticide management plans in place? | No | 0 | 0 | 0 | 0 | 1 | 0 |
| 38 | Does a perennial stream flow into Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 39 | Are watershed water quality protection plans in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **372** |
| Diversion Id's: | **021, 030, 017, 029, 029** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:47:32** |

## Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

# Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Comments for Unregulated Sites

| Potential Contaminant Site No. | Site Comments | Author |
|---|---|---|
| 207639 | TEST COMMENT FOR 207639 | Derrick Beasley |

## Comments for Regulated Confined Animal Feeding Operations Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fort Hays State University Farm | 2001823 | This is a small dairy facility with no groundwater monitoring. | Nicole Fisher |
| Ksu Agricultural Research Ctr. | 2002504 | This cattle livestock facility has no water quality protection plans. | Nicole Fisher |

## Comments for Regulated Hazardous Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Leaking Storage Tank Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| A A Coors | 3000398 | the site is closed from a diesel leak in 1991. No groundwater contamination was suspected. | Nicole Fisher |
| Dons 66 | 3000548 | Tank removed | Mary Howes |
| Haliburton | 3001017 | the site is currently being monitored from a xylene leak in 1989. There are 2 PWS wells and 4 domestic water wells within .25 miles downgradient of the leak. | Nicole Fisher |
| Home Oil Supply | 3000146 | The site is active from a gasoline leak in 1998. Low levels of VOC's are present in the groundwater. | Nicole Fisher |
| Karst Well Drilling | 3001140 | The site is active from a gasoline leak in 1995. Groundwater pollution did occur. | Nicole Fisher |
| Mr Quick Mini Mart | 3000600 | The site is currently being monitored from a gasoline leak in 1992. There are 2 PWS wells and 3 domestic water wells within .25 miles downgradient of the leak. | Nicole Fisher |
| Speedy Lube Oil | 3001200 | The site is closed; no leakage was detected. | Nicole Fisher |
| Yuasa−exide | 3001354 | The site is closed from a diesel spill in 1990. No groundwater contamination was suspected. | Nicole Fisher |

## Comments for Regulated Identified Contaminated Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| MIDWEST ENERGY, INC. | 7000896 | The soil was contaminated with mercury and the contamination has been resolved. | Nicole Fisher |
| PERMIAN OIL | 7000888 | The soil and groundwater was contaminated with VOC's and observation wells were established in 1986. | Nicole Fisher |

## Comments for Regulated Identified Contaminated Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| WEST 8TH STREET (HAYS WELLS − 20,27,28) | 7000892 | Soil, groundwater, PWS, and private wells were contaminated with VOC from an unknown source. For more information please contact Robert Jurgens (785) 291−3250 | Nicole Fisher |

## Comments for Regulated Solid Waste Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| City of Hays | 5000769 | This solid waste facility is used for composting materials. No groundwater monitoring is required. | Nicole Fisher |
| Ellis County HHW Waste Program | 5000725 | This household hazardous waste facility accepts meth lab waste and no groundwater monitoring is required. | Nicole Fisher |

## Comments for Regulated Waste Water Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| KDHE/BER (DRY CLEANING TRUST FUND) HAYS | 6000891 | This facility frequently discharges water with contaminants that are within the recommended levels. | Nicole Fisher |
| ROME CORPORATION / WESTERN WELL SERVICE | 6000888 | This facility uses non−discharging lagoons. | Nicole Fisher |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **372** |
| Diversion Id's: | **021, 030, 017, 029, 029** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:47:32** |

## Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

# Added Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Comments for Added Contaminant Sites

| Added Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fuel, grain and feed and hay storage | 9000651 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| Irrigation equipment, pump site, and well | 9000661 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| dryland wheat field | 9000646 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| dryland wheat field | 9000660 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| dryland wheat field | 9000662 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| football field | 9000650 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| oil and gas wells | 9000648 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| on−site wastewater facility | 9000664 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| pastureland with stock cattle | 9000649 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| pastureland with stock cattle | 9000663 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |

## Comments for Added Contaminant Sites

| Added Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| underground gas oil pipelines | 9000647 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **372** |
| Diversion Id's: | **021, 030, 017, 029, 029** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:47:32** |

## Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# Analysis Question Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **372**

## Comments for Analysis Questions

| Analysis Question | Question Comments | Author |
|---|---|---|
| Did Not Receive Any Comments | | |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**
Diversion Id's: **004, 002, 003, 001, 006, 005**
Status: **Accepted**
Submit Date: **2002−12−10 15:18:06**

## Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication − phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi−quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

# Executive Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Susceptibility Likelihood Scores for Assessment Area

| Contaminant Category | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|
| Susceptibility Likelihood Score − SLS | 44 | 45 | 48 | 48 | 42 | 46 |
| SLS Range | Low | Low | Low | Low | Low | Low |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

## Susceptibility Likelihood Range

| SLS Range | |
|---|---|
| 0−50 | Low Susceptibility |
| 51−80 | Moderate Susceptibility |
| 81−100 | High Susceptibility |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**
Diversion Id's: **004, 002, 003, 001, 006, 005**
Status: **Accepted**
Submit Date: **2002−12−10 15:18:06**

## Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a100−foot radius around a groundwater well and a 1000−foot radius around a surface water intake. Zone B is a 2000−foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2−mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

# Potential Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207961 | Oil and Gas Field services | 1389 | C |
| 207963 | Single−family Housing Construction | 1521 | C |

## Regulated Confined Animal Feeding Operations Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 2001268 | Pfannenstiel, A. J. − Site #1 | A−SHEL−BA03 | C |

## Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Leaking Storage Tank Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Identified Contaminated Potential Site Sources

| Did Not Contain Any Of These Potential Site Sources |
|---|

## Regulated Solid Waste Potential Site Sources

| Did Not Contain Any Of These Potential Site Sources |
|---|

## Regulated Waste Water Potential Site Sources

| Did Not Contain Any Of These Potential Site Sources |
|---|

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**
Diversion Id's: **004, 002, 003, 001, 006, 005**
Status: **Accepted**
Submit Date: **2002−12−10 15:18:06**

## Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

# Added Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Added Potential Site Sources

| Source No. | Source Name | SIC ID | Zone |
|---|---|---|---|
| 9000652 | pastureland with stock cattle and CRP | 10080 | B |
| 9000654 | oil and gas wells | 1381 | B |
| 9000655 | Fuel, grain, and feed and hay storage | 10026 | C |
| 9000656 | on−site wastewater facility | 10067 | C |
| 9000653 | dryland wheat field | 111 | C |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**
Diversion Id's: **004, 002, 003, 001, 006, 005**
Status: **Accepted**
Submit Date: **2002−12−10 15:18:06**

## Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# Potential Contaminants Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Number of Unregulated Site Sources Identified for each Contaminant Category

| MicroBiological | Pesticides | IOC's | SOC's | VOC's | Nitrates |
|---|---|---|---|---|---|
| 1 | 0 | 1 | 2 | 0 | 1 |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**
Diversion Id's: **004, 002, 003, 001, 006, 005**
Status: **Accepted**
Submit Date: **2002−12−10 15:18:06**

## Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

**A** − Microbiolgical **B** − Inorganic Compounds **B1** − Eutrophication − Phosphorous
**B2** − Sedimentation **B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

# Potential Contaminants Listing

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Unregulated Identified Site Sources and associated Potential Contaminant Category

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 1389 | Oil and Gas Field services | Oil, Salt Water | B |
| " | " | " | C |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **373** |
| Diversion Id's: | **004, 002, 003, 001, 006, 005** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:18:06** |

## Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

# Protection Measures

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 1389 | Oil and Gas Field services | Oil, Salt Water | Proper management of production wastes | KAR 28−41, 45, 40 CFR 435 |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers | KAR 28−48, KDHE, KDEM |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**
Diversion Id's: **004, 002, 003, 001, 006, 005**
Status: **Accepted**
Submit Date: **2002−12−10 15:18:06**

## Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

# Assessment Analysis

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Ground Water Multiple Wells Analysis

**A** − Microbiolgical **B** − Inorganic Compounds
**B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 1 | Is any well under the influence of surface water? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Do all PWS wells meet KS PWS water well construction standards? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Is any well less than 30 feet deep? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Is gravel pack within 20 feet of any well surface? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Does a PWS own or control all the areas around the wells? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Does Zone B consist entirely of native grass? | No | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | Is there a contaminated well in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Is a class V UIC well present? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Are any commercial, industrial, or urban areas present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | Are any non−farm home sites present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | Do all the non−farm home sites have a water quality protection plan? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | Are any farmsteads present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 14 | Do all farmsteads have a water quality protection plan? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 15 | Is there grazing livestock in Zone B? | Yes | 1 | 0 | 1 | 0 | 0 | 0 |
| 16 | Have all livestock producers implemented water quality protection measures? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 17 | Is there livestock confinement in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 18 | Is each confined animal feeding operation registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Is there corn or grain sorghum production in Zone B? | Yes | 0 | 0 | 1 | 0 | 1 | 0 |
| 20 | Are corn/grain sorghum nutrient and pesticide management plans in use for each site? | No | 0 | 0 | 1 | 0 | 1 | 0 |
| 21 | Are any orchards present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Are orchard nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B? | Yes | 1 | 1 | 1 | 0 | 0 | 0 |
| 24 | Is there a railroad or major highway in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 25 | Is there oil production in Zone B or C? | Yes | 0 | 1 | 0 | 1 | 0 | 1 |
| 26 | Do coarse textured soils predominate Zones A, B and C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 27 | Is an irrigation well located in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 28 | Is a wastewater treatment facility in Zone B or C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 | Is a solid waste landfill in Zone B or C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | Are there unplugged, abandoned water wells present in Zone C? | Yes | 2 | 1 | 1 | 1 | 1 | 1 |
| 31 | Are any commercial, industrial, or urban area present in Zone C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 33 | Is there livestock confinement in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 0 |
| 34 | Is each confined livestock facility registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | Do all the livestock producers have water quality protection measures in place? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 36 | Are cropland nutrient management plans in place? | No | 0 | 0 | 1 | 0 | 0 | 0 |
| 37 | Are cropland pesticide management plans in place? | No | 0 | 0 | 0 | 0 | 1 | 0 |
| 38 | Does a perennial stream flow into Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 39 | Are watershed water quality protection plans in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **373** |
| Diversion Id's: | **004, 002, 003, 001, 006, 005** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:18:06** |

## Site Comments:

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This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

# Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Comments for Unregulated Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Confined Animal Feeding Operations Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Pfannenstiel, A. J. − Site #1 | 2001268 | This cattle livestock facility has no water quality protection plans. | Nicole Fisher |

## Comments for Regulated Hazardous Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Leaking Storage Tank Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Identified Contaminated Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Solid Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Waste Water Sites

| Did Not Receive Any Comments |
|---|

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **373** |
| Diversion Id's: | **004, 002, 003, 001, 006, 005** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:18:06** |

## Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

# Added Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Comments for Added Contaminant Sites

| Added Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fuel, grain, and feed and hay storage | 9000655 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| dryland wheat field | 9000653 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| oil and gas wells | 9000654 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| on−site wastewater facility | 9000656 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| pastureland with stock cattle and CRP | 9000652 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **373** |
| Diversion Id's: | **004, 002, 003, 001, 006, 005** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:18:06** |

## Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# Analysis Question Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **373**

## Comments for Analysis Questions

| Analysis Question | Question Comments | Author |
|---|---|---|
| Did Not Receive Any Comments | | |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**
Diversion Id's: **YE2, YE1**
Status: **Accepted**
Submit Date: **2002−12−10 15:23:57**

## Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication − phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi−quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

# Executive Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Susceptibility Likelihood Scores for Assessment Area

| Contaminant Category | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|
| Susceptibility Likelihood Score − SLS | 63 | 59 | 64 | 64 | 59 | 63 |
| SLS Range | Mid | Mid | Mid | Mid | Mid | Mid |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

## Susceptibility Likelihood Range

| SLS Range | |
|---|---|
| 0−50 | Low Susceptibility |
| 51−80 | Moderate Susceptibility |
| 81−100 | High Susceptibility |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**
Diversion Id's: **YE2, YE1**
Status: **Accepted**
Submit Date: **2002−12−10 15:23:57**

## Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a100−foot radius around a groundwater well and a 1000−foot radius around a surface water intake. Zone B is a 2000−foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2−mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

# Potential Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207980 | Oil and Gas Field services | 1389 | C |
| 206600 | Single−family Housing Construction | 1521 | C |
| 207918 | Single−family Housing Construction | 1521 | C |
| 207883 | Storage Batteries Manufacturing | 3691 | C |
| 206602 | Signs and Advertising Display Manufacturing | 3993 | C |
| 206672 | Signs and Advertising Display Manufacturing | 3993 | C |

## Regulated Confined Animal Feeding Operations Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 2001823 | Fort Hays State University Farm | A−SHEL−M001 | C |

## Regulated Hazardous Waste Potential Site Sources

| Did Not Contain Any Of These Potential Site Sources |
|---|

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000601 | Frontier Quick Mart | 06529 | C |
| 3001354 | Yuasa−exide | 24084 | C |

## Regulated Identified Contaminated Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 7000895 | ELLIS COUNTY LANDFILL | C602603012 | C |

## Regulated Solid Waste Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 5000067 | Ellis County | 0113−S | C |
| 5000548 | City of Hays | 0534−S | C |
| 5000549 | Allied, Inc. | 0535−S | C |
| 5000725 | Ellis County HHW Waste Program | 0704−S | C |

## Regulated Waste Water Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 6000049 | MEADOW ACRES MOBILE HOME PARK | C−SH16−OO02 | C |

## Regulated Waste Water Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 6002027 | ENERSYS, INC. | P−SH16−OO01 | C |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**
Diversion Id's: **YE2, YE1**
Status: **Accepted**
Submit Date: **2002−12−10 15:23:57**

## Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

# Added Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Added Potential Site Sources

| Source No. | Source Name | SIC ID | Zone |
|---|---|---|---|
| 9000657 | Fuel, grain and feed and hay storage | 10026 | B |
| 9000658 | on−site wastewater facility | 10067 | B |
| 9000664 | on−site wastewater facility | 10067 | B |
| 9000659 | pastureland with stock cattle | 10080 | B |
| 9000663 | pastureland with stock cattle | 10080 | B |
| 9000660 | dryland wheat field | 111 | B |
| 9000662 | dryland wheat field | 111 | B |
| 9000661 | Irrigation equipment, pump site, and well | 10012 | C |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**
Diversion Id's: **YE2, YE1**
Status: **Accepted**
Submit Date: **2002−12−10 15:23:57**

## Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# Potential Contaminants Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Number of Unregulated Site Sources Identified for each Contaminant Category

| MicroBiological | Pesticides | IOC's | SOC's | VOC's | Nitrates |
|---|---|---|---|---|---|
| 2 | 0 | 4 | 3 | 3 | 2 |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**
Diversion Id's: **YE2, YE1**
Status: **Accepted**
Submit Date: **2002−12−10 15:23:57**

## Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

**A** − Microbiolgical **B** − Inorganic Compounds **B1** − Eutrophication − Phosphorous
**B2** − Sedimentation **B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

# Potential Contaminants Listing

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Unregulated Identified Site Sources and associated Potential Contaminant Category

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 1389 | Oil and Gas Field services | Oil, Salt Water | B |
| " | " | " | C |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |
| 3691 | Storage Batteries Manufacturing | Inorganics, caustics, VOCs | B |
| " | " | " | D |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **374** |
| Diversion Id's: | **YE2, YE1** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:23:57** |

## Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

# Protection Measures

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 1389 | Oil and Gas Field services | Oil, Salt Water | Proper management of production wastes | KAR 28−41, 45, 40 CFR 435 |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 459 and State or federal Storm water pollution prevention regulations |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers | KAR 28−48, KDHE, KDEM |
| 3691 | Storage Batteries Manufacturing | Inorganics, caustics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct. Minimize outdoor storage | 40 CFR 461 and State or federal Storm water pollution prevention regulations |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**
Diversion Id's: **YE2, YE1**
Status: **Accepted**
Submit Date: **2002−12−10 15:23:57**

## Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

# Assessment Analysis

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Ground Water Multiple Wells Analysis

**A** − Microbiolgical **B** − Inorganic Compounds
**B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 1 | Is any well under the influence of surface water? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Do all PWS wells meet KS PWS water well construction standards? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Is any well less than 30 feet deep? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Is gravel pack within 20 feet of any well surface? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Does a PWS own or control all the areas around the wells? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Does Zone B consist entirely of native grass? | No | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | Is there a contaminated well in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Is a class V UIC well present? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Are any commercial, industrial, or urban areas present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | Are any non−farm home sites present in Zone B? | Yes | 1 | 0 | 1 | 0 | 1 | 0 |
| 12 | Do all the non−farm home sites have a water quality protection plan? | No | 1 | 0 | 1 | 0 | 1 | 0 |
| 13 | Are any farmsteads present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 14 | Do all farmsteads have a water quality protection plan? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 15 | Is there grazing livestock in Zone B? | Yes | 1 | 0 | 1 | 0 | 0 | 0 |
| 16 | Have all livestock producers implemented water quality protection measures? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 17 | Is there livestock confinement in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 18 | Is each confined animal feeding operation registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Is there corn or grain sorghum production in Zone B? | Yes | 0 | 0 | 1 | 0 | 1 | 0 |
| 20 | Are corn/grain sorghum nutrient and pesticide management plans in use for each site? | No | 0 | 0 | 1 | 0 | 1 | 0 |
| 21 | Are any orchards present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Are orchard nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B? | Yes | 1 | 1 | 1 | 0 | 0 | 0 |
| 24 | Is there a railroad or major highway in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 25 | Is there oil production in Zone B or C? | Yes | 0 | 1 | 0 | 1 | 0 | 1 |
| 26 | Do coarse textured soils predominate Zones A, B and C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 27 | Is an irrigation well located in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 28 | Is a wastewater treatment facility in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | Is a solid waste landfill in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 30 | Are there unplugged, abandoned water wells present in Zone C? | Yes | 2 | 1 | 1 | 1 | 1 | 1 |
| 31 | Are any commercial, industrial, or urban area present in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 32 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 33 | Is there livestock confinement in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 0 |
| 34 | Is each confined livestock facility registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | Do all the livestock producers have water quality protection measures in place? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 36 | Are cropland nutrient management plans in place? | No | 0 | 0 | 1 | 0 | 0 | 0 |
| 37 | Are cropland pesticide management plans in place? | No | 0 | 0 | 0 | 0 | 1 | 0 |
| 38 | Does a perennial stream flow into Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 39 | Are watershed water quality protection plans in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **374** |
| Diversion Id's: | **YE2, YE1** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:23:57** |

## Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

# Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Comments for Unregulated Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Confined Animal Feeding Operations Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fort Hays State University Farm | 2001823 | This is a small dairy facility with no groundwater monitoring. | Nicole Fisher |

## Comments for Regulated Hazardous Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Leaking Storage Tank Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Yuasa−exide | 3001354 | The site is closed from a diesel spill in 1990. No groundwater contamination was suspected. | Nicole Fisher |

## Comments for Regulated Identified Contaminated Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| ELLIS COUNTY LANDFILL | 7000895 | This site had groundwater contaminated with VOC's. For more information please contact Michael McNulty at (785) 296−1938 | Nicole Fisher |

## Comments for Regulated Solid Waste Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Allied, Inc. | 5000549 | This solid waste facility is closed with approval pending. | Nicole Fisher |
| City of Hays | 5000548 | This industrial solid waste facility only accepts lime sludge. | Nicole Fisher |
| Ellis County | 5000067 | This is a composting, transfer station, construction/demolition facility. No groundwater monitoring is required. | Nicole Fisher |
| Ellis County HHW Waste Program | 5000725 | This household hazardous waste facility accepts meth lab waste and no groundwater monitoring is required. | Nicole Fisher |

## Comments for Regulated Waste Water Sites

| Did Not Receive Any Comments |
|---|

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**
Diversion Id's: **YE2, YE1**
Status: **Accepted**
Submit Date: **2002−12−10 15:23:57**

## Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

# Added Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Comments for Added Contaminant Sites

| Added Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fuel, grain and feed and hay storage | 9000657 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| Irrigation equipment, pump site, and well | 9000661 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| dryland wheat field | 9000660 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| dryland wheat field | 9000662 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| on−site wastewater facility | 9000658 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| on−site wastewater facility | 9000664 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| pastureland with stock cattle | 9000659 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| pastureland with stock cattle | 9000663 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**
Diversion Id's: **YE2, YE1**
Status: **Accepted**
Submit Date: **2002−12−10 15:23:57**

## Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# Analysis Question Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **374**

## Comments for Analysis Questions

| Analysis Question | Question Comments | Author |
|---|---|---|
| Did Not Receive Any Comments | | |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**
Diversion Id's: **C32, C33**
Status: **Accepted**
Submit Date: **2002−12−10 15:46:33**

## Executive Summary:

The Executive Summary gives the assessment area's Susceptibility Likelihood Score (SLS) for each contaminant of concern category.

SLS indicates which contaminant category is most likely to impact a given public water supply. Contaminants of concern for groundwater include microbiological, inorganic compounds, nitrates, synthetic organic compounds, pesticides, and volatile organic compounds. Contaminants of concern for surface water include microbiological, inorganic compounds, eutrophication − phosphorus, sedimentation, synthetic organic compounds, pesticides, and volatile organic compounds.

To determine the assessment area's susceptibility to contamination, a qualitative (semi−quantitative) screening level susceptibility analysis was designed that utilizes general assumptions and best professional judgement. It is a systematic procedure comprised of simple yes/no questions. Each question in the susceptibility analysis focuses on the presence or absence of potential pollution sources in the assessment area. SLS is most useful in helping the Public Water Supply (PWS) focus on water quality protection actions towards a contaminant category of concern. For example, if the SLS for microbiological contamination is high, relative to volatile organic compounds (VOC), water supply protection planners would conclude that the attention should be directed towards microbiological contaminant sources rather than VOC sources.

# Executive Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Susceptibility Likelihood Scores for Assessment Area

| Contaminant Category | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|
| Susceptibility Likelihood Score − SLS | 63 | 63 | 61 | 68 | 62 | 67 |
| SLS Range | Mid | Mid | Mid | Mid | Mid | Mid |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

## Susceptibility Likelihood Range

| SLS Range | |
|---|---|
| 0−50 | Low Susceptibility |
| 51−80 | Moderate Susceptibility |
| 81−100 | High Susceptibility |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**
Diversion Id's: **C32, C33**
Status: **Accepted**
Submit Date: **2002−12−10 15:46:33**

## Potential Sources:

The Potential Sources section lists all the sites that have been identified as potential sources of contamination.

Potential sources of contamination may include land uses, industry, or businesses that could generate or store chemicals/substances that could potentially contaminate the water supply only if released into the environment. Both unregulated sites from business location databases and regulated sites from various KDHE databases were compiled. Additional sites could have been added by an evaluator through the assessment process to supplement the original data.

The 1987 Standard Industrial Classifications (SIC) were used to identify potential contaminate sites. The SIC system classifies establishments into industries on the basis of the primary activities of the establishment.

Each assessment area is delineated with 3 assessment zones. These zones can be used to get a general understanding of the potential influence sites have based on proximity to the water supply. Zone A is a100−foot radius around a groundwater well and a 1000−foot radius around a surface water intake. Zone B is a 2000−foot radius around wells and a hydrological delineated buffer around the surface water sources. Zone C is a 2−mile radius around wells and the balance of the watershed for intakes. The potential sources listed in this section are sorted to show all the potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business is identified in the study as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

The data for the potential sources of contamination was compiled from May through August in 2002. Some of the databases used were incomplete datasets that are continually being updated. Due to the incompleteness, inaccuracies, and new development, it is possible that sources of potential contamination that are in the assessment area are not included in the report. Inaccurate locations could also cause sources to show up in the assessment area that are not actually in the assessment. Additionally, duplication between the datasets could cause sites to show up multiple times in the assessment area.

# Potential Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206600 | Single−family Housing Construction | 1521 | B |
| 207937 | Veterinary Services, Specialties | 742 | C |
| 207938 | Veterinary Services, Specialties | 742 | C |
| 207939 | Veterinary Services, Specialties | 742 | C |
| 207982 | Veterinary Services, Specialties | 742 | C |
| 207208 | Oil and Gas Field services | 1389 | C |
| 207379 | Oil and Gas Field services | 1389 | C |
| 207380 | Oil and Gas Field services | 1389 | C |
| 207935 | Oil and Gas Field services | 1389 | C |
| 207980 | Oil and Gas Field services | 1389 | C |
| 207987 | Oil and Gas Field services | 1389 | C |
| 207988 | Oil and Gas Field services | 1389 | C |
| 206621 | Single−family Housing Construction | 1521 | C |
| 206627 | Single−family Housing Construction | 1521 | C |
| 206645 | Single−family Housing Construction | 1521 | C |
| 206734 | Single−family Housing Construction | 1521 | C |
| 207207 | Single−family Housing Construction | 1521 | C |
| 207367 | Single−family Housing Construction | 1521 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 207431 | Single−family Housing Construction | 1521 | C |
| 207505 | Single−family Housing Construction | 1521 | C |
| 207918 | Single−family Housing Construction | 1521 | C |
| 207206 | Nonresidential Construction | 1542 | C |
| 207371 | Highway and Street Construction | 1611 | C |
| 207537 | Wood Kitchen Cabinets Manufacturing | 2434 | C |
| 206486 | Prefabricated Wood Buildings Manufacturing | 2452 | C |
| 207782 | Commercial Printing NEC | 2759 | C |
| 207921 | Machinery, Except Electrical Manufacturing | 3599 | C |
| 207883 | Storage Batteries Manufacturing | 3691 | C |
| 207974 | Aircraft Equipment Manufacturing | 3728 | C |
| 206602 | Signs and Advertising Display Manufacturing | 3993 | C |
| 206672 | Signs and Advertising Display Manufacturing | 3993 | C |
| 207936 | Signs and Advertising Display Manufacturing | 3993 | C |
| 206491 | Local Trucking, without Storage | 4212 | C |
| 207923 | Farm and Garden Machinery | 5083 | C |
| 207934 | Farm and Garden Machinery | 5083 | C |
| 206748 | Gasoline Service Station | 5541 | C |

## Unregulated Potential Site Sources

| Source No. | SIC Description | SIC ID | Zone |
|---|---|---|---|
| 206790 | Gasoline Service Station | 5541 | C |
| 206794 | Gasoline Service Station | 5541 | C |
| 206816 | Gasoline Service Station | 5541 | C |
| 207483 | Gasoline Service Station | 5541 | C |
| 207941 | Gasoline Service Station | 5541 | C |
| 206524 | Mobile Home Park | 6515 | C |
| 207503 | Mobile Home Park | 6515 | C |
| 206687 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 206729 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 207929 | Top, Body, and Upholstery Repair Shops and Paint Shops | 7532 | C |
| 206709 | Auto Truck Repair Service | 7538 | C |
| 206710 | Auto Truck Repair Service | 7538 | C |
| 206730 | Auto Truck Repair Service | 7538 | C |
| 206825 | Auto Truck Repair Service | 7538 | C |
| 207337 | Auto Truck Repair Service | 7538 | C |
| 207352 | Auto Truck Repair Service | 7538 | C |
| 207429 | Auto Truck Repair Service | 7538 | C |
| 206844 | Car Wash | 7542 | C |
| 207747 | Car Wash | 7542 | C |
| 207189 | Repair Services, Nec | 7699 | C |

## Regulated Confined Animal Feeding Operations Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 2001823 | Fort Hays State University Farm | A−SHEL−M001 | C |

## Regulated Hazardous Waste Potential Site Sources

Did Not Contain Any Of These Potential Site Sources

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000285 | Frontier Quick Mart | 03487 | C |
| 3000548 | Dons 66 | 06341 | C |
| 3000601 | Frontier Quick Mart | 06529 | C |
| 3000644 | Love's #44 | 06728 | C |
| 3000675 | Coastal Mart #2501 | 06843 | C |
| 3000676 | Coastal Mart #2502 | 06844 | C |
| 3000677 | Coastal Mart #2504 | 06845 | C |
| 3000710 | Asb Oil Inc | 07026 | C |
| 3000847 | Hays Fire Dept | 08777 | C |
| 3000974 | Brown's Service Center | 12215 | C |

## Regulated Leaking Storage Tank Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 3000993 | Holiday 66 Food Plaza #2 | 12847 | C |
| 3001090 | James Lincoln Mercury Gmc | 15968 | C |
| 3001091 | James Motor C0 | 15972 | C |
| 3001093 | Golden Ox Truck Stop | 16028 | C |
| 3001354 | Yuasa−exide | 24084 | C |
| 3001364 | Fort Hays St Univ, Motor Pool | 24183 | C |
| 3001427 | Amoco #9667 | 25232 | C |
| 3001490 | J C Penney | 25574 | C |
| 3001680 | Kmart #9067 | 26436 | C |
| 3001701 | Texaco #54−107−026 | 26587 | C |
| 3001835 | Tmp−marian High School, Hays, 1701 Hall | 27111 | C |
| 3002015 | Hays Fire Equipment | 28100 | C |
| 3002258 | Apc0, Main St | 29361 | C |
| 3002271 | Wal−mart, Hays | 29420 | C |
| 3002665 | Golden Plains Trucking | 81218 | C |
| 3002745 | Quality Cleaners | 81409 | C |
| 3002789 | Ellis Co Emergency Management | 81507 | C |

## Regulated Identified Contaminated Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 7000895 | ELLIS COUNTY LANDFILL | C602603012 | C |

## Regulated Solid Waste Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 5000067 | Ellis County | 0113−S | C |
| 5000548 | City of Hays | 0534−S | C |
| 5000549 | Allied, Inc. | 0535−S | C |
| 5000725 | Ellis County HHW Waste Program | 0704−S | C |

## Regulated Waste Water Potential Site Sources

| Source No. | Source Name | ID/Permit No. | Zone |
|---|---|---|---|
| 6000049 | MEADOW ACRES MOBILE HOME PARK | C−SH16−OO02 | C |
| 6000890 | J.C. PENNEY COMPANY−HAYS | I−SH16−PO08 | C |
| 6000891 | KDHE/BER (DRY CLEANING TRUST FUND) HAYS | I−SH16−PO10 | C |
| 6002027 | ENERSYS, INC. | P−SH16−OO01 | C |

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**
Diversion Id's: **C32, C33**
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## Added Sources:

The Added Sources section lists all the sites that have been added as potential sources of contamination by an evaluator through the assessment process to supplement the original data.

The potential sources listed in this section are sorted to show the added potential sources in Zone A first, Zone B second, and Zone C third.

**Although a facility or business was added as a potential concern, it does not necessarily mean a release or spill has occurred. Contamination could only occur if certain chemical substances are released into the environment and filter into the water supply source.**

# Added Sources

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Added Potential Site Sources

| Source No. | Source Name | SIC ID | Zone |
|---|---|---|---|
| 9000657 | Fuel, grain and feed and hay storage | 10026 | B |
| 9000658 | on−site wastewater facility | 10067 | B |
| 9000664 | on−site wastewater facility | 10067 | B |
| 9000650 | football field | 10073 | B |
| 9000659 | pastureland with stock cattle | 10080 | B |
| 9000663 | pastureland with stock cattle | 10080 | B |
| 9000660 | dryland wheat field | 111 | B |
| 9000662 | dryland wheat field | 111 | B |
| 9000661 | Irrigation equipment, pump site, and well | 10012 | C |
| 9000651 | Fuel, grain and feed and hay storage | 10026 | C |

Public Water Supply: **HAYS, CITY OF**
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## Potential Contaminants Summary:

The Contaminants Summary shows the number of identified unregulated sources in the assessment area for each contaminant of concern category.

In order to obtain the number or sources for each category, a relationship was correlated between each Standard Industrial Classification (SIC) and the contaminant of concern categories. Each SIC was assessed and associated with contaminant categories. For example, if not managed properly, a car wash (SIC 7542) could potentially contaminate an intake because of inorganic compounds (IOC) and volatile organic compounds (VOC); thus, a car wash is associated with IOCs and VOCs.

A chart displays a count for each contaminant category. The sum for each category represents the total number of identified sources that have been associated with that particular contaminant category. However, the total number of identified sources does not include contaminants from the Added Sources. In our example, a car wash would be considered 2 sources of contamination. It would be a potential source of contamination for IOCs and for VOCs; thus, 1 would be added to the total number of sources in the VOC category and 1 would be added to the IOC category.

# Potential Contaminants Summary

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Number of Unregulated Site Sources Identified for each Contaminant Category

| MicroBiological | Pesticides | IOC's | SOC's | VOC's | Nitrates |
|---|---|---|---|---|---|
| 16 | 0 | 43 | 18 | 28 | 12 |

**A** − Microbiolgical
**B*** − Nitrates
**C*** − Pesticides
**B** − Inorganic Compounds
**C** − Synthetic Organic Compounds
**D** − Volatile Organic Compounds

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**
Diversion Id's: **C32, C33**
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## Potential Contaminants Listing:

The Potential Contaminants section lists the contaminant of concern category associated with each Standard Industrial Classification (SIC) found in an assessment area. A complete list of contaminant category codes are located at the bottom of this page.

The relationships defined between the Standard Industrial Classifications (SIC) and the contaminant of concern categories are displayed in a table format. Using our car wash example, the relationships can be better illustrated. A car wash could release IOC and VOC chemical substances. The connection is shown by indicating the SIC, 7542, and the associated contaminant categories, IOC (Category B) and VOC (Category D). However, the contaminants listed are not associated with any Added Sources.

The list is sorted by the SIC source description and it only shows unique SIC sources. For example, an assessment area can have 20 car washes in an assessment area, but the list is only going to show contaminant categories associated with car washes onetime. This is because all car washes have the same SIC and every car wash poses the same potential threat to water intakes.

**A** − Microbiolgical **B** − Inorganic Compounds **B1** − Eutrophication − Phosphorous
**B2** − Sedimentation **B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

# Potential Contaminants Listing

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Unregulated Identified Site Sources and associated Potential Contaminant Category

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 3728 | Aircraft Equipment Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 7538 | Auto Truck Repair Service | Inorganics, VOCs | B |
| " | " | " | D |
| 7542 | Car Wash | Inorganics, VOCs | B |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | D |
| 5541 | Gasoline Service Station | Inorganics, VOCs | B |
| " | " | " | D |
| 1611 | Highway and Street Construction | Sedimentation | B2 |
| 4212 | Local Trucking, without Storage | VOCs | D |
| 3599 | Machinery, Except Electrical Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | A |
| " | " | " | B |
| " | " | " | B1 |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | B* |
| 1542 | Nonresidential Construction | Sedimentation | B2 |
| 1389 | Oil and Gas Field services | Oil, Salt Water | B |
| " | " | " | C |
| 2452 | Prefabricated Wood Buildings Manufacturing | TSS | B |
| " | " | " | D |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | B |
| " | " | " | D |
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | A |
| " | " | " | B1 |
| " | " | " | B2 |
| " | " | " | B* |
| " | " | " | C |
| 3691 | Storage Batteries Manufacturing | Inorganics, caustics, VOCs | B |
| " | " | " | D |
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | B |
| " | " | " | D |
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | A |
| " | " | " | B |

## Unregulated Identified Site Sources and associated Potential Contaminant Category.

| SIC ID | SIC Source | Potential Contaminant | Contaminant Category |
|---|---|---|---|
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | B |
| " | " | " | D |
| 2759 | Commercial Printing NEC | Inorganics, VOCs, Semi volatiles | B |
| " | " | " | C |
| " | " | " | D |
| 5083 | Farm and Garden Machinery | inorganics | B |
| 7699 | Repair Services, Nec | inorganics | B |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
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## Protection Measures:

The Protection Measures section shows water quality protection measures for the Standard Industrial Classifications (SIC) identified in the assessment area.

Previous sections of this report are designed to show areas that Public Water Supplies (PWS) can focus on to improve the susceptibility of an assessment area. This section helps identify water quality protection measures that a PWS can use as guidance for implementing action for a potential contaminant site in the assessment area. It focuses on protection measures that can reduce the risk of contamination to the water supply.

This portion of the report only displays water quality protection measures for each type of SIC found in the assessment area. It does not display protection measures for each site in the assessment area because every SIC should have the same or similar water quality protection management practices. However, the protection measures listed are not associated with any Added Sources.

# Protection Measures

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 3728 | Aircraft Equipment Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 464 and State or federal Storm water pollution prevention regulations |
| 7538 | Auto Truck Repair Service | Inorganics, VOCs | Discharge to POTW. Manage oil products and used oil so that it is not in contact with water | 40 CFR 442 and |
| 7542 | Car Wash | Inorganics, VOCs | Install and maintain sediment and grease traps where appropriate | 40 CFR 442 |
| 5541 | Gasoline Service Station | Inorganics, VOCs | Maintain area to minimize fuel contamination | NA |
| 1611 | Highway and Street Construction | Sedimentation | Erosion and Sediment Control | KAR 28−16, KDHE |
| 4212 | Local Trucking, without Storage | VOCs | Discharge to a POTW | State or federal Storm water pollution prevention regulations |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 3599 | Machinery, Except Electrical Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | State or federal Storm water pollution prevention regulations |
| 6515 | Mobile Home Park | Sanitary wastes, Fertilizers | Discharge to POTW. Minimize use of lawn chemicals | KAR 28−5 |
| 1542 | Nonresidential Construction | Sedimentation | Erosion and Sediment Control | KAR 28−16, KDHE |
| 1389 | Oil and Gas Field services | Oil, Salt Water | Proper management of production wastes | KAR 28−41, 45, 40 CFR 435 |
| 2452 | Prefabricated Wood Buildings Manufacturing | TSS | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |
| 3993 | Signs and Advertising Display Manufacturing | inorganics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct | 40 CFR 459 and State or federal Storm water pollution prevention regulations |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 1521 | Single−family Housing Construction | Oil, Paint, Pesticides, Fertilizers | Proper cleaning and disposal of household hazardous waste. Proper storage, application, and clean up of pesticides and fertilizers | KAR 28−48, KDHE, KDEM |
| 3691 | Storage Batteries Manufacturing | Inorganics, caustics, VOCs | Manage wastes properly and treat process wastewater prior to discharge to a POTW or direct. Minimize outdoor storage | 40 CFR 461 and State or federal Storm water pollution prevention regulations |
| 7532 | Top, Body, and Upholstery Repair Shops and Paint Shops | Inorganics, VOCs | Discharge to POTW. Recycle where appropriate. Properly maintain oil product and waste. Manage paint and solvent wastes properly | NA |
| 742 | Veterinary Services, Specialties | Sanitary, Inorganics TSS | Discharge to POT | NA |
| 2434 | Wood Kitchen Cabinets Manufacturing | TSS, VOCs | Discharge of process waters to POTW. Minimize outdoor storage. | State or federal Storm water pollution prevention regulations |
| 2759 | Commercial Printing NEC | Inorganics, VOCs, Semi volatiles | Recycle chemicals where possible. Discharge to POTW | 40 CFR 459 and State or federal Storm water pollution prevention regulations |

## Recommended Water Quality Protection Measures

| SIC | SIC Source | Contaminant Source | Water Quality Protection Measure | Regulatory Authority |
|---|---|---|---|---|
| 5083 | Farm and Garden Machinery | inorganics | Discharge to POTW | NA |
| 7699 | Repair Services, Nec | inorganics | Discharge to POTW | NA |

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## Assessment Analysis:

The Assessment Analysis section displays the numbers assigned to each contaminant of concern category for each question in the susceptibility analysis.

This analysis is based on a decision tree framework consisting of a series of yes/no questions. These questions consider the proximity of contaminant sources to the water supply intake, the type of contaminant, and the application of pollution prevention or water quality protection practices to sources of contamination. As the evaluator moves through the analytical framework, susceptibility points are accumulated based on the presence of contaminant sources in the assessment area.

After all the questions have been answered, the SLS is calculated for each contaminant of concern category. The SLS is determined by counting the number of contamination risk factors found to occur in the delineated assessment area and applying a multiplier to this number. Because the number of contaminant category risk factors is not equal, the multiplier is used to establish a common scale for the SLS of each contaminant category.

# Assessment Analysis

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Ground Water Multiple Wells Analysis

**A** − Microbiolgical **B** − Inorganic Compounds
**B*** − Nitrates **C** − Synthetic Organic Compounds
**C*** − Pesticides **D** − Volatile Organic Compounds

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 1 | Is any well under the influence of surface water? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Do all PWS wells meet KS PWS water well construction standards? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Is any well less than 30 feet deep? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Is gravel pack within 20 feet of any well surface? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Does a PWS own or control all the areas around the wells? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Does Zone B consist entirely of native grass? | No | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | Is there a contaminated well in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Is a class V UIC well present? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Are any commercial, industrial, or urban areas present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 10 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 11 | Are any non−farm home sites present in Zone B? | Yes | 1 | 0 | 1 | 0 | 1 | 0 |
| 12 | Do all the non−farm home sites have a water quality protection plan? | No | 1 | 0 | 1 | 0 | 1 | 0 |
| 13 | Are any farmsteads present in Zone B? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 14 | Do all farmsteads have a water quality protection plan? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 15 | Is there grazing livestock in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Have all livestock producers implemented water quality protection measures? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | Is there livestock confinement in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |

| No. | Question | Response | A | B | B* | C | C* | D |
|---|---|---|---|---|---|---|---|---|
| 18 | Is each confined animal feeding operation registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Is there corn or grain sorghum production in Zone B? | Yes | 0 | 0 | 1 | 0 | 1 | 0 |
| 20 | Are corn/grain sorghum nutrient and pesticide management plans in use for each site? | No | 0 | 0 | 1 | 0 | 1 | 0 |
| 21 | Are any orchards present in Zone B? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Are orchard nutrient and pesticide management plans in use for each site? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | Are there unsewered developments (concentrations of lagoons or septic systems) present in Zone B? | Yes | 1 | 1 | 1 | 0 | 0 | 0 |
| 24 | Is there a railroad or major highway in Zone B or C? | Yes | 0 | 1 | 1 | 1 | 1 | 1 |
| 25 | Is there oil production in Zone B or C? | Yes | 0 | 1 | 0 | 1 | 0 | 1 |
| 26 | Do coarse textured soils predominate Zones A, B and C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 27 | Is an irrigation well located in Zone B or C? | No | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 | Is a wastewater treatment facility in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | Is a solid waste landfill in Zone B or C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 30 | Are there unplugged, abandoned water wells present in Zone C? | Yes | 2 | 1 | 1 | 1 | 1 | 1 |
| 31 | Are any commercial, industrial, or urban area present in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 32 | Does each industrial/commercial site and urban area have a water quality protection plan in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |
| 33 | Is there livestock confinement in Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 0 |
| 34 | Is each confined livestock facility registered with KDHE? | Yes | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | Do all the livestock producers have water quality protection measures in place? | No | 1 | 0 | 1 | 0 | 0 | 0 |
| 36 | Are cropland nutrient management plans in place? | No | 0 | 0 | 1 | 0 | 0 | 0 |
| 37 | Are cropland pesticide management plans in place? | No | 0 | 0 | 0 | 0 | 1 | 0 |
| 38 | Does a perennial stream flow into Zone C? | Yes | 1 | 1 | 1 | 1 | 1 | 1 |
| 39 | Are watershed water quality protection plans in place? | No | 1 | 1 | 1 | 1 | 1 | 1 |

Public Water Supply: **HAYS, CITY OF**
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## Site Comments:

The Site Comments section lists all the comments that were added for the potential sources of contamination found in the assessment area.

Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding detail to the sites that can be referenced for more information.

This local information may include comments on potential contamination threats (or lack there of), local water quality protection initiatives, etc. Adding comments are optional and are mainly focused on sources in areas that could have the greatest impact on water supply if a spill or release occurred in the environment. It is left to the discretion of the PWS and/or source water assessment committee to add comments.

# Site Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Comments for Unregulated Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Confined Animal Feeding Operations Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fort Hays State University Farm | 2001823 | This is a small dairy facility with no groundwater monitoring. | Nicole Fisher |

## Comments for Regulated Hazardous Waste Sites

| Did Not Receive Any Comments |
|---|

## Comments for Regulated Leaking Storage Tank Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Dons 66 | 3000548 | Tank removed | Mary Howes |

## Comments for Regulated Leaking Storage Tank Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Yuasa−exide | 3001354 | The site is closed from a diesel spill in 1990. No groundwater contamination was suspected. | Nicole Fisher |

## Comments for Regulated Identified Contaminated Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| ELLIS COUNTY LANDFILL | 7000895 | This site had groundwater contaminated with VOC's. For more information please contact Michael McNulty at (785) 296−1938 | Nicole Fisher |

## Comments for Regulated Solid Waste Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Allied, Inc. | 5000549 | This solid waste facility is closed with approval pending. | Nicole Fisher |
| City of Hays | 5000548 | This industrial solid waste facility only accepts lime sludge. | Nicole Fisher |
| Ellis County | 5000067 | This is a composting, transfer station, construction/demolition facility. No groundwater monitoring is required. | Nicole Fisher |
| Ellis County HHW Waste Program | 5000725 | This household hazardous waste facility accepts meth lab waste and no groundwater monitoring is required. | Nicole Fisher |

## Comments for Regulated Waste Water Sites

| Potential Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| KDHE/BER (DRY CLEANING TRUST FUND) HAYS | 6000891 | This facility frequently discharges water with contaminants that are within the recommended levels. | Nicole Fisher |

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## Added Site Comments:

The Added Site Comments section lists the comments for why sites were added as a potential source of contamination found to the assessment area.

# Added Site Comments

Public Water Supply: **HAYS, CITY OF**
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## Comments for Added Contaminant Sites

| Added Contaminant Site Name | Site No. | Site Comments | Author |
|---|---|---|---|
| Fuel, grain and feed and hay storage | 9000651 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| Fuel, grain and feed and hay storage | 9000657 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| Irrigation equipment, pump site, and well | 9000661 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| dryland wheat field | 9000660 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| dryland wheat field | 9000662 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| football field | 9000650 | This information was obtained from the Wellhead Protection Plan. | Nicole Fisher |
| on−site wastewater facility | 9000658 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| on−site wastewater facility | 9000664 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| pastureland with stock cattle | 9000659 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |
| pastureland with stock cattle | 9000663 | This information was obtained from the Wellhead Protection Plan. | Gary Saunders |

| | |
|---|---|
| Public Water Supply: | **HAYS, CITY OF** |
| Assessment Area: | **375** |
| Diversion Id's: | **C32, C33** |
| Status: | **Accepted** |
| Submit Date: | **2002−12−10 15:46:33** |

## Analysis Question Comments:

The Analysis Question Comments section lists all the comments that were added during analysis portion of the assessment, in which a series of yes/no questions were asked.

Evaluators have the option to add comments to questions to clarify why a response was given or to give more details to a question. Local comments and feedback from people that are familiar with the assessment area is an important aspect of the assessment. The comments greatly improve the assessment by adding clarification and details that could not be identified with a simple yes or no response.

# Analysis Question Comments

Public Water Supply: **HAYS, CITY OF**
Assessment Area: **375**

## Comments for Analysis Questions

| Analysis Question | Question Comments | Author |
|---|---|---|
| Did Not Receive Any Comments | | |